This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

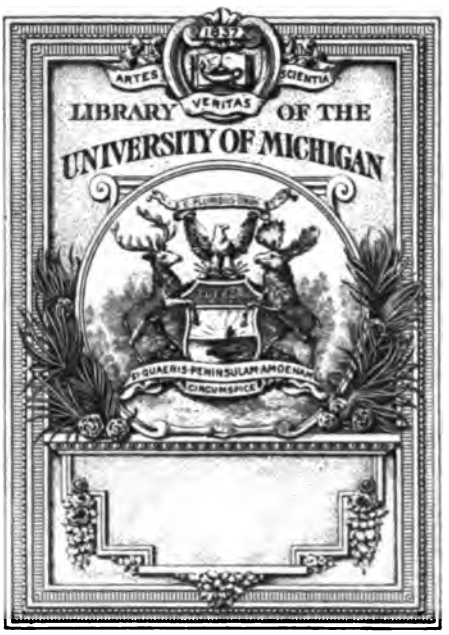
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

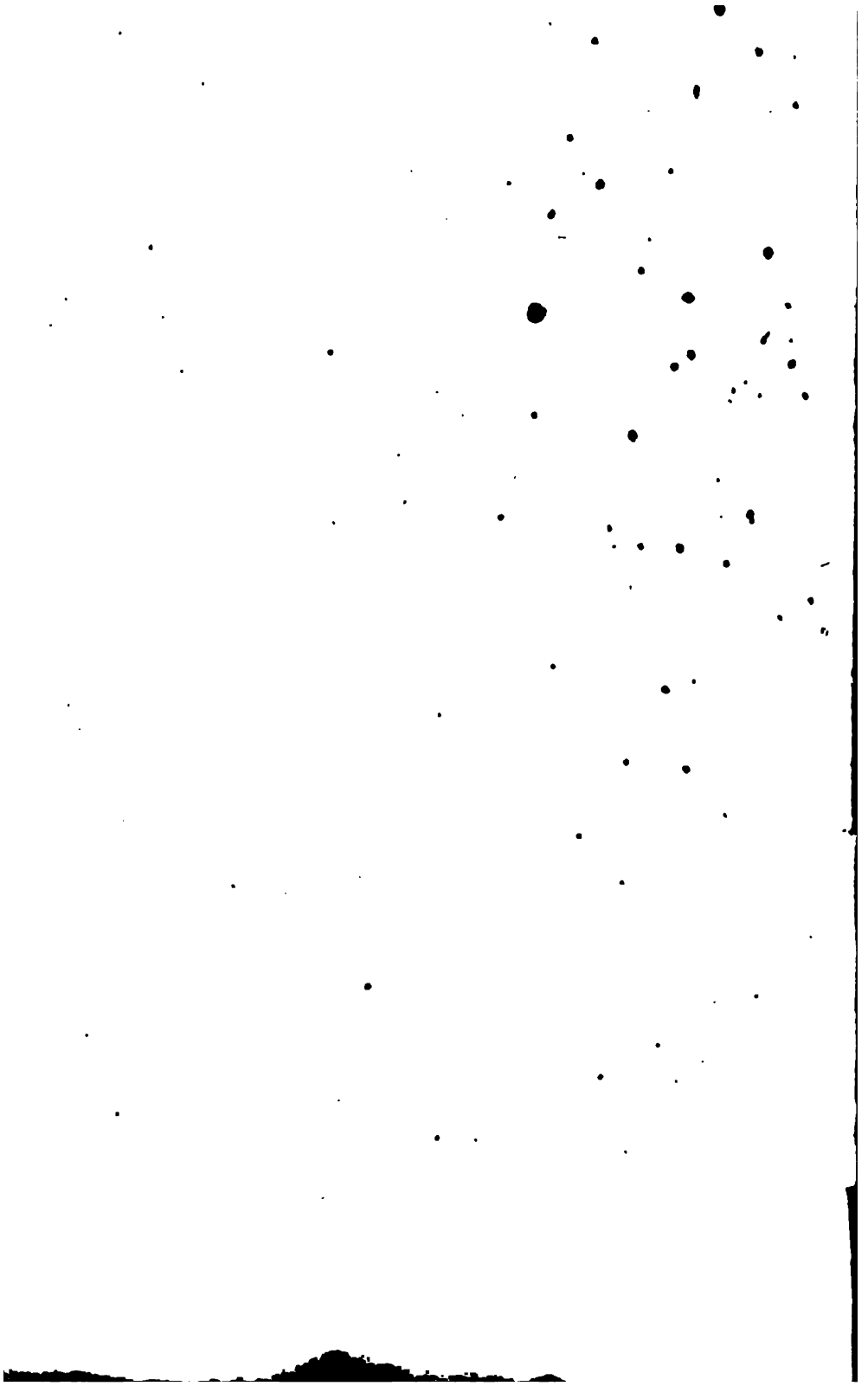
About Google Book Search

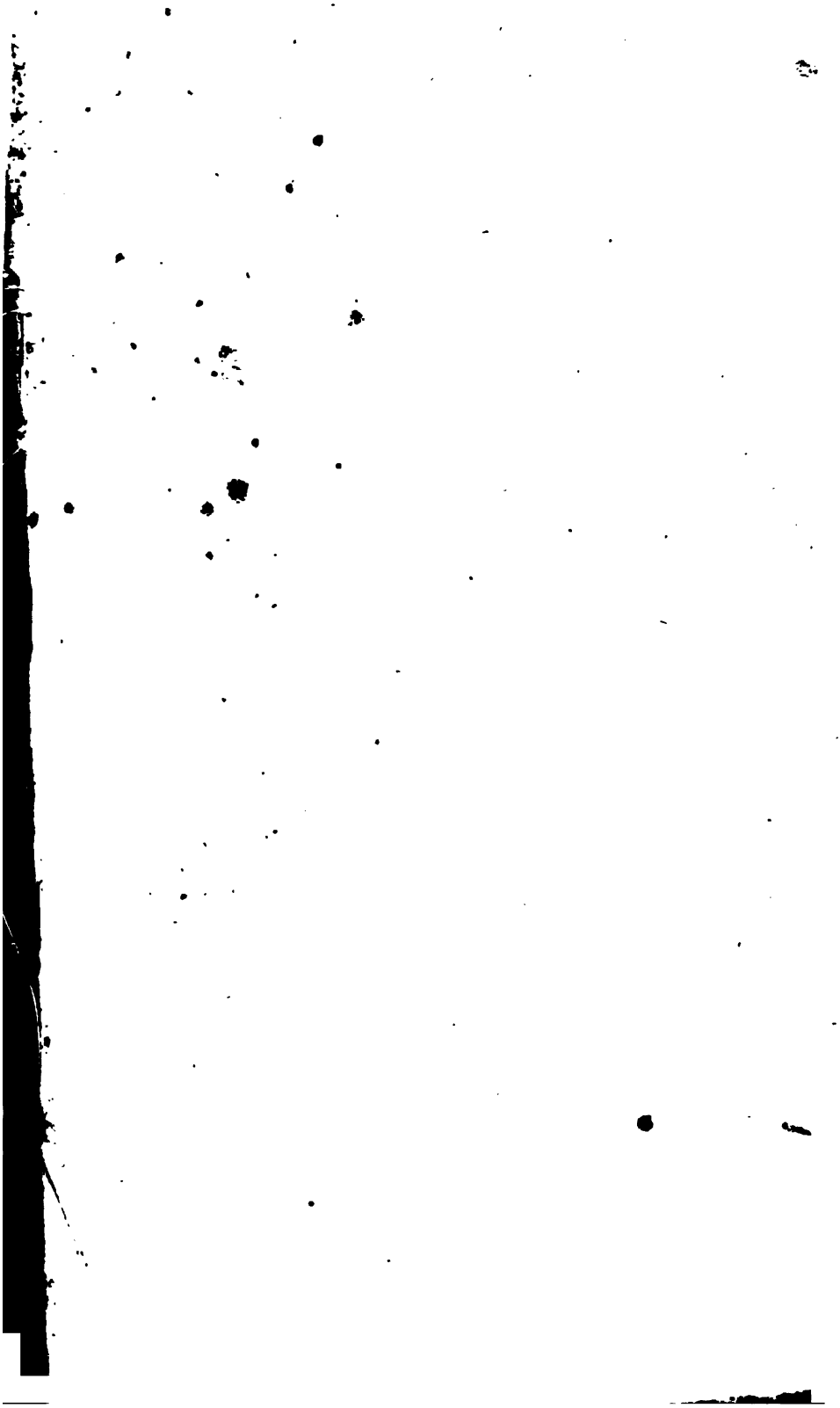
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

A 3 9015 00380 764 4
University of Michigan – BUHR


ARTES
VERITAS
SCIENTIA
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
SI QUAERIS PENINSULAM AMOENAM
CIRCUMSPICE

WT 52
R45





THE

Medico-Chirurgical Review,

AND

JOURNAL

OF

MEDICAL SCIENCE.

(Quarterly.)

EXHIBITING A COMPREHENSIVE ANALYTICAL RECORD OF PROGRESSIVE MEDICINE AND SURGERY;

EQUALLY ADAPTED TO ALL RANKS OF THE PROFESSION.

CONDUCTED BY

ASSOCIATED PHYSICIANS AND SURGEONS;

AND SUPERINTENDED BY

JAMES JOHNSON, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

(Analytical Series.)

VOLUME IV. for 1823-4.

Nec tibi quid liceat sed quid fecisse decebit
Occurrat mentemque domat respectus honesti. CLAUD.

LONDON:—PUBLISHED.

NEW-YORK:

REPUBLISHED BY J. V. SEAMAN, BROADWAY.

J. & J. Harper, Printers.

1824.

CONTENTS

OF

No. 13, Vol. IV. for JUNE 1823.

Art. I.

SUICIDE.

1. Esquirol on Suicide - - - - - - - } 1
2. Falret on Suicide - - - - - - - }

II.

Mr. Ellis's Biography of Dr. Gordon - - - 29

III.

PHYSIOLOGY OF THE CIRCULATION.

1. Dr. Lucas's Principles of Inflammation - - } 38
2. Dr. Parry on the Pulse - - - - - - }

IV.

Dr. Chapman's Elements of Therapeutics and Materia Medica 61

V.

DUBLIN HOSPITAL REPORTS, VOL. III.

Art. 1. Mr. Todd on Aneurism - - - - - 77
2. Dr. Douglas on Puerperal Fever - - - - 83
3. Dr. Speer on the Diseases of Dublin - - - 88
4. Dr. Colles on Dissection Wounds - - - - 95

(Reports to be continued.)

VI.

Sir Alex. Crichton on Pulmonary Consumption - - 102

VII.

Dr. Cooke on Epilepsy - - - - - - - - 119

VIII.

Mr. Wilkinson on Cutaneous Diseases - - - - 132

IX.

DYSENTERY.

1. Dr. Cheyne on Dysentery - - - - - } 136
2. Dr. O'Brien on Dysentery - - - - - }

X.

Dr. Good's Study of Medicine - - - - - - 155

XI.

Professor SCARPA on Scirrhus and Cancer. By Mr. BRIGGS 172

XII.

QUARTERLY PERISCOPE.

1. Dr. Scott on Dracunculus - - - - - - 182
2. Mr. Brodie on the Bile - - - - - - 186
3. Mr. Shaw on Laryngeal Disease - - - - 188
4. Dr. Hume on Phthisis - - - - - - 189
5. M. Dupuytren on Prolapsus Ani - - - - 191
6. Mr. Earle on Ununited Fractures - - - - 192
7. Mr. Austin on Bronchocele - - - - - 193
8. Mr. Wade on Enteritis - - - - - - *ib.*
9. Sir Astley Cooper on dilatation of the Female Urethra *ib.*
10. Mr. Charles Bell on Cancer Mammæ - - - 195
11. Dr. Heineken on Diabetes Mellitus - - - - 200
12. Mr. B. Hutchinson on Tetanus - - - - *ib.*
13. Drs. Christison and Coindet on Oxalic Acid - - 201
14. Mr. Gilder on Vaccine and Measles - - - 205
15. Remedy for Ascarides - - - - - - 206
16. Mr. Pretty on Petechiæ Hæmorrhagicæ - - - *ib.*
17. Mr. Vincent's Operation on the Neck - - - 207
18. Acetate of Morphia - - - - - - 208
19. Remarkable Abdominal Disease - - - - 210
20. Dr. Goodisson on the Ionian Isles - - - - 211
21. Bronchotomy - - - - - - - - 213
22. Small-pox and Varicella - - - - - 214
23. Rheumatic Metastasis - - - - - - - 215
24. Mr. Broughton on Cubebs - - - - - 216
25. The Knife-Eater - - - - - - - 218
26. Abdominal tumour - - - - - - - 220
27. Mr. Edwards's Case of Poisoning - - - - 221
28. Mercury in Acute Diseases - - - - - 222
29. Dr. Akenside on Cancer - - - - - - *ib.*
30. Mr. Dowler on the Products of Inflammation - - 223
31. Sir Astley Cooper on Dislocations and Fractures—Fracture of the Cervix Femoris - - 225

XIII.

Bibliographical Record - - - - - - - - 229

XIV.

EXTRA LIMITES.

1. Mr. LIZARS' Reply to a Critique in the Medico-Chirurgical Review - - - - - - - 232
2. Mr. LOWE's Letter to Mr. Lizars - - - - *ib.*

Intelligence, Correspondence, &c. - - - - - 234
To Correspondents - - - - - - - - 239
Additional Subscribers - - - - - - - - 240

THE

Medico-Chirurgical Review,

AND

JOURNAL OF MEDICAL SCIENCE.

(Analytical Series.)

"Nec Aranearum textus ideo melior, quia ex se fila fingunt; nec noster vilior, quia ex alienis libamus, ut apes."

VOL. IV.] JUNE 1, 1823. [No. 13

I.

1. *Du Suicide.* Par M. ESQUIROL. Dict. des Sciences Med. Vol. LIII.

2. *Du Suicide.* Par J. P. FALRET, M. D. Octavo, pp. 358. Paris, 1822.

NOTHING can be more true than that "self-preservation is the first law of Nature," from the lord of the creation down to the minutest insect. How is it then, that man alone lifts his hand against his own life? Various motives lead him to this unnatural act. But, however various may be the causes, they almost all and always tend to over-excite the imagination, and lead it to dwell on some real or fancied GOOD more precious than life—or some real or fancied ILL more formidable than death. An examination of the principal circumstances or causes, which lead to self-destruction, will convince us that this act does not always deserve the name of suicide—or at least that idea of reproach connected with self-murder. Neither can this act be considered as *always*, though very generally, the effect of mental alienation. Victims to notions false but accredited—to customs barbarous yet national, not only individuals but whole sects have devoted themselves to voluntary death. Almost every passion has its tide, which rises occasionally to an excess that sacrifices all things that oppose it—not even excepting the life of the individual. In febrile delirium, in insanity, suicide is more frequently committed than people imagine. Hypochondriasis and lypemania not unfrequently lead to that hatred and ennui of life which ends in self-murder.

We have said that self-destruction cannot always be classed with, or denominated culpable or maniacal suicide. He who

nobly and generously exposes his own life to inevitable destruction, in obedience to laws or religious creeds, or to preserve inviolate his honour or his oath, cannot surely be styled a self-murderer. Such was Codrus, who sought death in the enemy's camp to accomplish the oracle that promised victory to the Athenians—such were the generous souls of Calais and Rouen, who offered themselves a sacrifice to save the lives of their fellow citizens ready to perish by famine and the sword of the enemy. Were Socrates and Regulus suicides because one swallowed hemlock rather than violate the laws, and the other returned to Carthage rather than forfeit his word of honour? Are we to give the name of suicide to those enthusiasts who are taught by their religion and incited by their priests to devote themselves to voluntary death, as an act the most honourable in this world, and sure to be rewarded in a world to come? Instances of this kind were numerous among the Thracians, ancient Germans, Arabs—and even now among the Hindoos. By the Gymnosophists life was taught to be despised, and death represented as the summum bonum. Disease, infirmity, old age, among them were opprobria—and natural death dishonourable. In the capital of the Isle of Cos, the native land of Simonides, no septuaginarians were to be seen. Suicide was permitted by the laws after the age of 60 years, and it was generally performed amidst the assembled relations, by drinking a deadly potion of poppy or hemlock. It would be endless to relate the various customs of this kind which have prevailed in different countries. The burning of the Hindoo widows, and the voluntary sacrifices annually made under the wheels of the Jaggernaut car, are modern examples of fanatical suicide.

1. *Etiology.* Among the predispositions to this dreadful act, Dr. Falret includes the hereditary. Suicidal melancholia he reckons as one of the species of mental alienation, which is most readily transmissible from parent to progeny. This is confirmed by the testimony of Esquirol, Spurzheim, Rush, and even Voltaire. Dr. F. relates several instances in illustration of this hereditary disposition; among the rest the celebrated Barthez, whose father starved himself to death at the age of 90 years, in consequence of the loss of his second wife; while the son was haunted with a similar propensity in his old age, on account of the death of a favourite servant. He lamented, however, that he had not courage to put the father's example into practice.

Temperament, M. Falret thinks, has no small influence in the production of the suicidal tendency. He instances the unhappy fate of our countryman Chatterton, the Bristol

poet, who, a few days before his death, (by arsenic) wrote to his mother in these terms :—"I am about to quit, for ever, my ungrateful country. I shall exchange it for the deserts of Africa, where tigers are a thousand times more merciful than man!" This unfortunate youth, we need hardly say, was nearly dead with hunger in this ungrateful land of luxury, when he swallowed poison to end his misery! The offsprings of his fine genius were so ill judged, and badly paid, that he could not procure the common necessaries of life!

The sanguine temperament is favourable to the developement of the suicidal tendency, in consequence of the irascibility, excessive sensibility, and natural impetuosity of this class of people. In respect to age, we observe less of the suicidal disposition in youth and senectitude, than in adolescence. The reason is evident enough. It is at this latter period that the passions burst forth in all their impetuosity, and render man too prodigal of life. In old age man becomes as parsimonious of his life as his purse. Nevertheless we have examples of suicide in the two extremes of existence. M. Falret knew a boy of twelve years of age hang himself because he could not get higher than the twelfth in his class. A melancholy example of this kind lately occurred in Westminster School, where a fine boy threw himself out of a window in consequence of some chagrin of mind. Dr. F. relates the case of a gentleman, 75 years of age, who hanged himself on the 17th July, 1819, in Paris. A paper was found in his desk, written with his own hand, and containing these words :—"Christ has said that, when the tree is old, and incapable of bringing forth fruit, it is to be hewn down and thrown into the fire."

Females, who are much more disposed to melancholy than men, are yet much less addicted to suicide.* This is probably to be attributed to their comparative weakness of physical constitution, to their gentleness of character—but still more, we think, to their patience and resignation under the dispensations of Providence, and under the calamities and crosses of life.

To the vicious modes of education—to the seduction of novel-reading—to the effeminating effects of music, and of theatrical representations, our authors (M. Falret in particular) attach much influence in generating a suicidal tendency. These, we apprehend, can only act by corrupting

* According to the experience of Falret and Esquirol, the comparative frequency among males and females is as three of the former to one of the latter.

the morals and deteriorating the health—and thus far predisposing to various other crimes and casualties in common with suicide.

The effects of climate have been greatly exaggerated. The climate of England, for instance, must be nearly the same now as at the Roman invasion, when suicide was unknown in this land. So must have been the climate of Italy; yet suicide was common among the Romans, and is now rare among the Italians. It is to moral and physical circumstances, of course, that we are to look for the principal causes of these revolutions, rather than to climate. Did the battle of Pharsalia change the climate of Italy, when it produced so many suicidal acts? At Copenhagen the number of suicides have doubled within the last ten or twelve years—without any change of climate. The same may be said of France after the revolution. At the same time we must not assert that climate has no influential effect. A gloomy atmosphere, like ours, exasperates the nervous and melancholic temperament, and may thus conduce indirectly to self-destruction.

Onanism is considered by many writers as tending to this crime—and so is a life of idleness succeeding activity. For obvious reasons suicide is infinitely more prevalent among the rich and profligate, than among the poor and consequently industrious classes of society.

But among all classes it is to the *passions* we must look for the paramount cause of suicidal attempts. We all know that when passion rises to a certain extent, the whole physical and intellectual economy of man is disordered. The organic functions are, as it were, perverted, as well as the reasoning faculty—in short, a man under the influence of unbridled passion (of whatever kind) is in a state of temporary insanity, and then commits actions diametrically opposed to his real interests and natural dispositions. Thus terror will often deprive us of the thought of flight, and plunge us into greater danger than that by which we are menaced—love, in excess, deprives the individual of the powers or qualifications necessary for the accomplishment of his object—jealousy will drive a man of the most amiable disposition to imbrue his hands in the blood of his best friend!

The suicidal tendency generated by the passions is either acute or chronic. Under a gust or ebullition of passion a man may quickly destroy himself—but more frequently it is of a chronic nature, and the rankling passion gives occasion to a premeditated act. "Yet," says Esquirol, "it is certain that, up to the moment of execution, the man who attempts his own life is almost always like a man in a state of despair

or intellectual aberration." ("Semblable presque toujours à un homme désesperé et dans le delire.")

Dr. Falret places the passion of love at the head of the list of those which most powerfully derange both body and mind. We do not consider this passion as by any means the most common in the production of suicide. Blighted ambition; the loss of fortune by gambling; scepticism; and religious melancholy, we apprehend, are far more frequently the causes of self-murder than erotomania. Love, however, is by no means an infrequent cause of this dreadful catastrophe. Dr. Falret relates the case of a young apothecary, who, on receiving a rebuff from his sweetheart, went home and blew out his brains, having first writtin the following sentence on his door. "When a man knows not how to please his mistress, he ought to know how to die." Esquirol was called to a lady who refused to take any sustenance in consequence of surprising her husband in an improper situation with another woman. She died on the seventh day, notwithstanding every effort to divert her from her fixed and desperate resolution.

The sense of shame or dishonour is a very powerful impulse to suicide, as attested by all history. Lucretia could not survive the outrage of Tarquinius Sextus, and therefore plunged a dagger in her breast. The Roman generals, in the civil wars, usually committed suicide when unsuccessful in battle, to prevent the mortification of coming under the yoke. These classical suicides, if we may use such an expression, are rendered familiar to us all by the histories and tragedies of Brutus and Cassius, Anthony and Cleopatra, Cato, and other celebrated characters constantly represented on our stages.*

"Insensibly undermined," says Dr. Esquirol, "by the effects of hatred, of jealousy, of blighted ambition, of squandered fortune, man

* Remorse has doubtless wrought many a self-murder. M. Guillon, in his memoirs of suicides, relates the following remarkable instance. The Chevalier de S——— had had seventeen affairs of honour, in each of which his adversary fell. But the images of his murdered rivals began to haunt him night and day; and at length he fancied he heard nothing but the wailing and upbraidings of seventeen families—one demanding a father, another a son, another a brother, another a husband, &c. Harrassed by these imaginary followers, he shut himself up in the monastery of La Trappe; but the French revolution threw open this asylum, and turned the Chevalier once more into the world. He was now no longer able to bear the remorse of his own conscience, or, as he supposed, the sight of seventeen murdered men, and therefore put himself to death. It is evident that insanity was here the consequence of the remorse and the cause of the suicide.

is brought slowly, and by successive paroxysms, to the most dreadful resolutions. But acting thus slowly, the passions act not the less effectually in enfeebling the physical powers and disordering the intellectual faculties of man. Many unfortunate people, under such circumstances, have attempted their own lives, while they scarcely knew what they were doing. Many have assured me that they could remember nothing of the transaction."

Physical pain or suffering, which leads often to hypochondriasis and even insanity, is sometimes productive of suicide—but much less frequently than *mental* anguish.

"He, (says M. Esquirol,) who has no intervals of ease from corporeal pain—who sees no prospect of relief from his cruel malady, fails, at length, in resignation, and destroys his life in order to put a period to his sufferings. He calculates that the pain of dying is but momentary, and commits the act in a cool and meditated despair. It is the same in respect to *moral* condition, that drives the hypochondriac to suicide, who is firmly persuaded that his sufferings are beyond imagining—that they are irremediable, either from some fatal peculiarity in his own constitution, or the ignorance of his physicians. It is a remarkable feature in hypochondriasis, that in no other disease, is there such a fear of death and a desire to die combined!—Both fears proceed from the same pusillanimity. Finally, it may be remarked, that the hypochondriac talks much of death—often wishes his attendants to perform the friendly office—even makes attempts on his own life—but rarely accomplishes the act. The most trifling motive, the most frivolous pretext, is a sufficient excuse for procrastinating, from day to day, the threatened catastrophe."*

We have said in another part of this Journal, that *physical* pain but rarely leads to suicide. We still adhere to this assertion, particularly as it regards the female sex. Nevertheless, we do not mean to deny that corporeal suffering occasionally drives its victim to this dreadful mode of terminating bodily anguish. But, we apprehend, that the intellect generally suffers prior to this finale. Licinius Cœcinius, the pretor, subdued by the pain and ennui of a tedious disease,

---

* Dr. Falret relates a melancholy case that happened lately in a provincial mad-house in France. An apothecary was there confined, who was haunted with the ennui and hatred of life, and who was always begging his companions to put him to death. At length, an insane patient was admitted who instantly complied with the apothecary's request. They watched an opportunity, got out of a window into the back yard, and from thence into the kitchen. They pitched upon the cook's chopper, and the apothecary laying his neck on a block, his companion deliberately and effectually severed the head from the body. He was seized and examined before a tribunal, where he candidly confessed the whole transaction, and observed that he would again perform the same friendly office for any unhappy wretch who was tired of his existence!

swallowed opium. Haslam relates the case of a gentleman, who destroyed himself to avoid the tortures of gout.* Esquirol knew a young lady who, by a diabolical attempt made on her virtue, was thrown into convulsions, which frequently returned and rendered her life distressing. She made reiterated attempts to poison herself, but always failed, and after several years of great suffering recovered.† The pellagra of Italy occasionally produces suicide, but is then generally attended with symptoms denoting considerable determination to the head.

The loss of beauty, by disease or age, has, we believe, more frequently driven females to self-murder, than any of those painful maladies, as cancer, &c. to which they are peculiarly liable. Georget and Falret have each related some curious cases of this kind.

Dr. Esquirol remarks, that maniacs often commit suicide, where reflection has little or no concern in the act. They generally precipitate themselves from a height, which shews that they obey a blind impulse, and employ a mean the most easy of execution, and least liable to interruption. The insane, he observes, live under the constant influence of illusions, pursued by imaginary dangers, the sport of their hallucinations. They are often destroyed by false calculations, when they are supposed to have committed deliberate suicide. Thus, it is not uncommon for a lunatic to open a window and fall down into the area, supposing himself going into his apartment. A maniac who was harassed with bulimia died suddenly; and, on examination, it was found that he had swallowed a sponge, in a mistake for some kind of food, which had stuck in the œsophagus and compressed the windpipe.

"A monomaniac," says Esquirol, "hears a voice within him, which repeats these words—'*kill thyself, kill thyself.*' He therefore, commits suicide in obedience to this superior power, whose order he

---

*It is recorded, that the pain of gout drove Servius, the grammarian, to death by poison. Pliny the younger informs us, that one of his friends, Cornelius Rufus, having in vain sought remedies to palliate the tortures of this disease, starved himself to death at the age of 67 years. It is related of Pomponius Atticus, and the philosopher Cleanthes, that they both starved themselves to death, in order to get rid of physical pain. In the course of these attempts, the corporeal sufferings were removed—probably in consequence of the great exhaustion and attenuation—but both individuals persevered till death took place, observing that, as this final ordeal must one day be undergone, they would not now retrace their steps or give up the undertaking.—These instances corroborate our opinion, that pain deranges the intellect before the individual determines on suicide.

†M. Esquirol. Dict. des Sciences Med. Vol. LIII. p. 219.

dare not withstand. A man under a religious hallucination believed himself in communication with the Deity. He hears a celestial voice saying;—'*my son, come and seat thyself by my side*' He opens the window to obey the invitation, falls down and fractures his leg. When carried to his bed, he expresses the greatest astonishment how he could possibly have come by the fall and the wound."

Dr. Esquirol relates a great many curious instances of maniacal suicide, showing the intimate connexion between disordered intellect and tendency to self murder. A very remarkable case was that of a gentleman, of some political consequence, who had an attack of apoplexy, from which he recovered by copious blood letting. Some years afterwards he had a fall from his horse, and was severely wounded in the head, the injury occasioning fever and delirium of some weeks' duration. After this accident, he evinced some marks of mental aberration. He threw up his post under government, and retired to his chateau in the country, for the purpose of maturing a scheme for *uniting the people of all nations!* To prepare a suitable edifice for this philanthropic union, he began to pull down his chateau; but being interrupted by his friends, he came to Paris, and one day jumped off the Pont-Neuf into the middle of the Seine. He swam manfully and reached the shore in safety. He was so proud of this exploit that he considered himself invulnerable, and began next day, to run in the way of every carriage or fiacre he met in the street, calling to the drivers that they need not mind him, as he could not be injured. He was seized and carried home, but in a day or two, jumped out of his chamber window into the street. He was then put under M. Esquirol, and now remains an incurable maniac in Dr. E's establishment.

The curious case of Louvat, a shoe-maker in Venice, published by Dr. Marc, illustrates the melancholy fate of our illustrious countryman, the late Mr. Whitbread. Louvat, under some strange religious, or rather fanatical impression, cut off the genital organs, and threw them out of the window of his apartment into the street, having every thing ready to dress the wound, from which he recovered without any accident. Soon after this, he became persuaded that God had ordered him to die on the cross. After two years' meditation and preparation, he actually nailed himself on a cross, being crowned with thorns, and contrived, thus, to suspend himself on the side of his house. He was taken down in the morning and carried to the public hospital, where he recovered of his wounds, but not of his hallucination. Being confined in a lunatic asylum, he ultimately died of phthisis.

To the disgrace of human reason, it must be acknowledged that, in all ages and nations, abused religion and superstitious

creeds have led man to lift his hand against his own life. History informs us that, when the doctrine of the immortality of the soul issued from the Platonic school, and became disseminated through Greece, numbers of people, discontented with their condition in this world, committed suicide, in the hope of enjoying an incorporeal beatitude in another world. It is probable, that Christianity would very generally tend to produce the same effect, were it not that patience and resignation under the ills of life, are continually inculcated, and the non-observance of them threatened with future punishment. In this way, all possible excuse is taken away from the suicide, and no person in his right reason, and who believes in the tenets of Christianity, can entertain an idea of self-murder.* We have made use of the terms "right reason," because we are convinced, that lunacies and suicides apparently resulting from religion, do really arise from a *misconception* or *misconstruction* of scripture, which misconceptions or misconstructions working on weak minds, derange the intellect, and, in that way, lead to a lunatic asylum or an unnatural death. Religion is not, therefore, accountable for these imbecilities of the human mind. It is the abuse of religion, the same as it is the abuse of love, which leads to insanity and suicide. Of all religions, Christianity has been the most effectual, indeed, in bridling the passions of man, and thus preventing the crime under consideration. The proof of this may be seen in the tremendous impulse to suicide which scepticism and irreligion have generated in this country, as well as on the Continent. Well may Dr. Falret say :—

L'irreligion est certainement une cause tres frequente de suicide. Celui qui pense que l'homme meurt tout entier, qui ne croit pas à une autre vie, est necessairement disposé à abandonner celle qui lui paraît une source de calamités."

Scepticism, or the *doubt* of an hereafter, must very generally lead to the same thing as downright *disbelief*—for, as Dr. Falret justly observes, "of what weight in the balance will be the *doubt* of futurity against the *reality* of present misery?"—The author in question has recorded the case of a youth (we might say a child) of 12 years of age, who hanged himself because he was justly corrected for a fault, first leaving a written paper behind him, containing all manner of blasphemies against every thing held sacred by mankind!

* It is curious that the crime of self-murder is not distinctly named or denounced in the Evangelists. But there is abundant collateral proof that the act of suicide was condemned by Christ and his disciples.

What must be the system of education or the state of morals in a country, where a youth of that tender age could be imbued with such sentiments and principles!

It is unnecessary, we think, to review the influence of the different sects and religions scattered over the earth, on the passions and tendencies of mankind. As we have before said, there is no religion so influential as the Christian, in restraining the passions and checking the crime of suicide. Dr. Falret conceives, that the form of government must exert considerable influence on the tendency in question—and, indeed, on mental diseases in general. Under a despotic government, which checks the expression of the passions, there are few insane, and few suicides—excepting during those dreadful crises, when one tyrant, or set of tyrants, dispossess another, involving a number of people in the struggle. There are some exceptions, however, to this rule respecting despotisms. Thus, the Japanese, who groan under the most cruel of all tyrannies, despise death, and rip open their bellies on the most trifling occasions. At this we need not be surprised, when we reflect that, in that country, almost all crimes, without distinction, are visited with death. The constant spectacles of capital punishment, must, therefore, render the mind callous to death, in fear or expectation of which, the people must constantly live.

The "esprit militaire," our author thinks, may have a tendency to increase suicide, by inculcating the despisal of death. The Roman soldiery, at one epoch, were very much addicted to this crime—partly in order not to survive the disgrace of a defeat—partly to avoid serving in the triumphal march of their conquerors. It is to be observed, however, that very few instances of suicide obtain during active warfare. The disastrous retreats of the French army from Moscow, and of the English army from the interior of Spain, produced, we believe, not a single instance of self-murder. During a campaign, indeed, the soldier is too much employed in fighting the battles of his country, and has too many opportunities of shedding his blood in an honourable manner, to think of suicide. Suicide, like duelling, is principally confined to garrisons, and to times of peace, when the passions, which were kept in check by the pursuits of ambition and of glory, burst forth in these ugly and disgraceful shapes.

Republican forms of government are those, which give greatest latitude to the turbulent passions of mankind, and, thus, favour the developement of mental alienation, and consequently suicide. It is curious, that it is not immediately during the explosion of political revolutions that these re-

diseases of the mind appear—but, immediately before, and for some time after these commotions. The reason is not difficult to explain. While the revolutionary storm lasts, people are too anxious for their own lives and those of their friends, to commit self-murder. But when a political catastrophe of this kind is on the eve of taking place, the imagination magnifies the danger and the consequences, and the tenor of the human mind often gives way during the conflicting emotions engendered by suspense. After the conflict is over, people have time to reflect on the losses they have sustained in friends and fortune, and then insanity and suicide are prodigiously augmented. The French revolution exhibited numerous illustrations of these remarks.

It is abundantly evident, that the progress of civilization must be attended with a corresponding increase of mental as well as corporeal maladies—and, particularly, from over-excitement of both systems. Thus we find, that suicide, so common in England, France, and Germany, is almost unknown throughout those vast countries under the dominion of the Czars.* It is somewhat remarkable, that Switzerland appears to be freer from this crime than any country in Europe.

The tendency to suicide is always in relation to the state of public manners. In examining the history of the Jews, we find this crime nearly unknown while they continued submissive to the laws, faithful to their religion, and animated with the love of their country—but suicide became frequent, when they were divided by schisms and torn by factions. The horrible spectacles of self-destruction exhibited by the Jews at the siege of Jerusalem, have been handed down in the page of history.

In respect to Greece, it was remarked by Atheneus, that when the daughters of Miletus put themselves to death, the Milesians had then passed from a state of the greatest fortitude to one of the greatest effeminacy.

From the battle of Pharsalia, (the tomb of Republican Rome) may be dated the frequency of suicide among the Romans. The succeeding epochs of tyranny and cruelty exhibited by their emperors, and the change of manners in the people, were well calculated to call forth the most melancholy and mortifying reflections among all who were capable

* M. Chevrey, in his Medical Essay on Suicide, states that, when a captive in Russia, on the border of the Caspian Sea, he one day made inquiries of a very intelligent peasant respecting suicide. The peasant was utterly astonished when he was told that, in M. Chevrey's country, people frequently destroyed themselves. After sometime he observed that, of course, they must be insane when they committed such unnatural acts.

of thinking, and contrasting these wretched times, with the splendid eras of Rome in its republican career of glory and heroism. The hosts of pimps and informers under the degenerate and despotic emperors, rendered private, as well as public life a scene of terror and uncertainty, and led to frequent suicide in order to avoid the frightful tortures which awaited the victims of tyranny and oppression.*

Some of our author's modes of accounting for the rise, progress, and increase of suicide in England, are are not very satisfactory. It was, he thinks, in the reign of our eighth Henry, when religious schisms began to distract men's minds, that this frightful propensity first began to make head in this country. In later periods of our history, the discussions carried on respecting the question, whether man has not a right to free himself from existence when he pleases, (and on which question we shall make some remarks farther on) contributed, no doubt, to increase the crime, in consequence of the various arguments brought forward in its defence. These arguments would doubtless make a much greater impression on the *wavering* mind, than their opposites, and give an additional impulse to all those in whom the suicidal tendency had begun to operate. In our own days, however, there can be no doubt that the frequency of suicide among us, is attributable to a great number of causes, among which, we may particularly distinguish—commercial speculations, political contentions, fanatical extravaganzas, scepticism and irreligion, (which ought probably to have been put at the head of the list) idleness and extravagance, among the upper classes, drunkenness and debauchery, among the lower—and, we may add, the extreme sensibility to public opinion among all classes.

The operative causes of suicide in France, at the present day, are rather tenderly touched on by both our authors;—partly, we suppose, from the restrictions under which the liberty of the press exists in that country, but principally, we imagine, from that propensity which every Frenchman exhibits, (a propensity, more amiable than philosophic) of drawing a veil over the failings of his countrymen. We think the following sketch, however, pretty correct; and sufficiently comprehensive to include the principal, or most of the principal causes of suicide, on the other side of the channel.

---

* To cite but a single example:—Vibulenus Agrippa, a Roman knight, while his accusers were stating their fabrications in the senate-house, swallowed poison in the midst of the senators. The lictors instantly seized him, and dragged him in the most barbarous manner into prison, where they quickly commenced their tortures, which were continued for some time after life had departed from their victim!

"Independently of the general causes which have already been alluded to, if we cast an eye on the actual situation of our own country, (France) on the numerous projects disconcerted, hopes annihilated, hands without employment, families derobed of their ancient splendour, and pretensions unsatisfied; we cannot wonder at the quantum of discontent which is now operating. What difficulty in striking out new roads to prosperity, or even to procure the means of existence! How hard is it to languish in an ignoble repose that forms such a contrast with the tumultuous agitation and excitement of our late existence! Can men accustomed to cut their way to fortune, (violenter la fortune) be satisfied with domestic quietude, and the humble rank of citizen? In fine, the state of inertia which has now succeeded to enterprises the most perilous, to labours the most Herculean;—the violent shocks of opposing interests;—the animosity of contending parties;—the clashings of sentiment among families the most intimately allied;—the increase of luxury and artificial wants;—the instability of social institutions; and finally, the fluctuation of public opinion—these are the veritable causes of suicide in France.*

Dr. Falret adds, by way of codicil to the above picture, what we consider to be the most important trait of all—namely, that the multiplied and too powerful impressions which have so long operated on a people naturally irritable, have produced a deep taint in their physical constitution. The sensual passions take up their residence in the most effeminate bodies, and they excite the greater irritation as the means of satisfying them are wanting. These privations form the torment of existence, and produce a disgust of life.

"Ajoutons que des impressions excessives et multipliées chez un peuple naturellement si irritable, ont porte une atteinte profonde a sa constitution physique. Toutes les passions sensualles logent dans des corps effemines; ils s'en irritent d'autant plus qu'ils peuvent moins les contenter. Cette privation fait le tourment de l'existence, et l'on se sent porte au degout de la vie, &c."

We shall not enter into the discussions respecting the comparative frequency of suicide in Paris and London. Drs. Esquirol and Falret have questioned the statements of our countryman, Dr Burrows, on this point; and he has given a satisfactory reply in a late number of the Medical Repository, to which source we refer those who are curious on this subject. It is sufficient to say that this rash and unhappy practice is too prevalent on both sides of the Channel. It appears that in the year 1817 there were 351 suicides in Paris and vicinity, and in 1818 the number was 330—a frightful catalogue of self-murders.

---

* Falret. p. 94.

Dr. [illegible] whom, in the text, Dr. Faber has taken some information on the subject of suicide) makes some curious and unanswerable remarks on the distinction between [illegible] of life, and [illegible] This last he considers [illegible] kind of irritation or [illegible] on the other hand, is a *passive* [illegible] a stupid annihilation of sensibility. Ha[illegible] because a thousand [illegible] this common source of [illegible] thought it is more [illegible] with riches [illegible] more subjected [illegible] more violent kind. A [illegible] becomes affected [illegible] mere ends in [illegible] we ought [illegible] and [illegible] in the [illegible]

[illegible] Is [illegible]

[illegible] chronic [illegible] and [illegible] most which [illegible] suicide [illegible] character [illegible] the [illegible] practice, [illegible] same concentration [illegible] ideas—the same [illegible] affections—the same [illegible] every other subject—the same ob-

---

[illegible] p. 228.

stinacy—the same dissimulation in the execution of their designs.

Dr. Esquirol states that he has often seen a variety of suicide, not noticed by authors, but which, he thinks, bears great analogy to what has been denominated by English writers the "SPLEEN."

"There are individuals," says our author, "who, from various physical or moral causes, fall into a state of corporeal torpor and mental depression. They complain of loss of appetite, dull pain in the head, sense of heat in the stomach and viscera, borborygmi, and constipation of the bowels; while they exhibit little or no external indication of disease. In the female sex, the menses are sometimes suppressed. As the complaint advances, the features alter, and the countenance exhibits anxiety—the complexion becomes pale or sallow—there is a sense of tightness or even pain in the epigastrium; a kind of confusion in the head which prevents them from fixing their attention or arranging their thoughts; a general torpor or lassitude which keeps them inactive. They dislike to move out, and love to loll about on a sofa—they are irritated if you advise them to take exercise—they abandon their ordinary ocupations—neglect their domestic concerns—become indifferent to their nearest connexions—in short, they will neither converse, nor study, nor read, nor write, shunning society, and being impatient of the inquiries or importunities of friends. In this state they become filled with gloomy ideas (idées noires)—despair of ever being better—desire and even invoke death, and sometimes destroy themselves, from a conviction that they are no longer capable of fulfiling their duties in society. These people are perfectly sane on all subjects of conversation; their impulse to suicide being strong in porpotion to the activity of their former occupations, and the importance of their former duties. I have seen this disease (for it is a disease) continue for several months; for two years. I have seen it alternate with mania, and with perfect health. I have seen patients who would be six months of the year maniacal or in sound health and the other six months tormented with these gloomy ideas and impulse to suicide."—*Dict. des Sciences Med. v. 58*

Here Dr. Esquirol relates some curious and interesting cases illustrative of the foregoing description, of which we can only notice one or two. One was a gentlman 32 years of age, of apparently good constitution, having never experienced illness, and who had had a good education, but adapted to a lucrative business for which he was designed. He was married to a woman whom he loved at the age of 27. Some affairs went wrong with him, a few years after marriage, which greatly discouraged him, and rendered him inactive, without apparently affecting his health. He now embarked in a speculation which promised much advantage, and at first applied himself to business with unremitting assiduity. In the course of a month, he encountered some dif-

ficulties, which depressed him beyond measure. He considered himself ruined—refused to quit his bed, and would not superintend his workmen, from a conviction that he was no longer capable of directing their operations. He complained of head-aches, heat in his stomach and bowels, and constipation. His affection for his wife and children, his pecuniary interest, all failed to rouse him from this prostration, moral and physical. He reasoned sanely on the critical situation of his affairs, and yet made no effort to extricate himself from his difficulties. Eight days passed in this way; when, all at once, he sprung from his bed in perfect integrity of mind and body. He resumed instantaneously all his activity for business, all his affection for his family. The same state, however, recurred ten or twelve times since, at irregular intervals, caused, in general, by trifling contrarieties of business, which, under other circumstances, would be considered as nothing. During several of these paroxysms he has had impulses to suicide, but this dreaded catastrophe has not yet taken place.

A remarkable case is also related of a female, who entered the Salpetriere on the 23d of September, 1819, in the 34th year of her age, and fourteen years after marriage. At the age of 21 she had a child, after wich she was affected with an ulcer in the foot, wich was healed in six months. From this time she was troubled with cardialgia, at first slight, but afterwards with intense pain and vomiting of her food. These symptoms continued more or less till her second pregnancy, at the age of 27, when the stomach affection became greatly exasperated, and she was convinced there was cancer of that organ. At the age of 33 she became irresolute in her ideas and actions, with dislikes to those things she before was pleased with, and occasional incoherencies. In the course of six months she became sleepless, and complained of pain at the root of the nose. Her face assumed a pallid aspect, the features altered, and the countenance exhibited something wild. There was pain in the stomach, and sense of tightness in the epigastrium. She now abandoned her household affairs, became greatly despondent, and tried more than once to commit sucide. In this state she came into the Salpetriere, and was put upon diluents, low diet, and the tepid bath. In three months the mind became more composed, and she wished to have some employment. But the sense of tightness in the epigastrium and the sleeplessness continued obstinate. She was put on aperient whey diet, and had a blister to the nape of the neck. This last produced great irritation, and the whey brought down copious tools. She now

began to have sleep; hope revived in her breast, and she worked with pleasure. She was able to return to her family on the 23d March, 1820, but has since had several threatenings of relapse, and at the time of writing, this unhappy patient was harassed with gloomy ideas, despair of recovery, and desire to quit a life, the duties of which, she no longer found herself able to fulfil.

"But it will be said (continues our author) that there are individuals who, in the midst of affluence, grandeur, and pleasures, and in the full enjoyment of reason, have suddenly put an end to their existence, immediately after parting with their friends in good spirits, or after having written letters on business with perfect correctness—can these be said to be insane when they commit suicide? yes, most undoubtedly. Do not monomaniacs appear perfectly sane on all other subjects till the particular idea is started which forms the burthen of their hallucination! Are they not capable of curbing the expression of their delirium, and dissembling their aberration of intellect? It is the same with some individuals over whom the suicidal idea tyrannizes. A physical pain, an unexpected impression, a moral affection, a recollection, an indiscreet proposition, the perusal of a passage in writing, will occasionally revive the thought and provoke the act of suicide, although the individual appears the instant before in perfect integrity of mind and body."—*Esquirol ut supra.*

Pinel relates an analogous case of a maniac confined in the Bicetre at the breaking out of the revolution, and who, appearing perfectly sane when the revolutionists were forcing open the various prisons, was paraded about in triumph as one of the supposed victims of regal tyranny. Before the triumphal procession was closed, however, the tune was turned; for, excited by the vociferations and military spectacles around him, the original homicidal hallucination was called up—and he sprung among the people, sword in hand, aiming at the life of every one within his reach!

M. Esquirol has never seen an unequivocal instance of any individual drawn to the commission of suicide by a kind of irresistible impulse, as it were, and independent of any secret grievance, real or supposed. We have only seen one instance (a female) where this impulse is confessed, and is described as perfectly involuntary and irresistible. She owns to no source of grievance, except this unfortunate propensity, which is periodical, returning almost every day circa meridiem, after which she feels nothing but a horror at the propensity just vanished. This lady is not under our own immediate care at present; but we had her history from her own mouth about nine months ago. We are inclined, however, to agree in a great measure, with the opinion of M. Esquirol, that could the secret feelings of these suicides be accurately

ascertained, there would generally, if not always, be found some lurking source of discontent, real or fanciful, in the breast, which served as motives to this suicidal propensity. Many instances are on record, it is true, where men have put a period to their existence without any visible cause or motive; but, as Rousseau has justly observed—"le bonheur n'a point d'enseigne exterieure: pour en juger, il faudrait lire dans le cœur de l'homme heureux."

"Individuals," says M. Esquirol, "who appear outwardly the residence of happiness, are often inwardly a focus of chagrin, and tortured with distracting passions. That man who destroyed his own life, being at the same time happy in his mind, is a phenomenon which human reason cannot comprehend."

It is a curious feature in the history of suicide, that it is sometimes preceded by a tendency to homicide. M. Esquirol observes, that all the instances of this kind which have come before the public, have a surprising analogy with one another. They appear all to have laboured under monomania, or an hallucination on a particular topic, being perfectly sane in all other respects. They generally choose for victims those who are, or were, most dear to their hearts. They commit the homicide with an apparent calmness and tranquillity, which are not disturbed when the horrid act is perpetrated. On the contrary, they often appear gratified in having accomplished their object. Many have gone immediately to the proper authorities and confessed their crime, or disclosed it to the first of their acquaintances whom they met. Far from concealing the transaction, they usually give themselves up to the officers of justice, and demand the capital punishment attached to murder.

Sir A. Chrichton, in his able work on mental derangement, relates several cases of suicidal homicides. These unfortunate beings, not having the courage to destroy themselves, committed homicide on others, with the view of expiating their crimes on the scaffold. The examples are extremely numerous of individuals who, in a paroxysm of anger or jealousy, have slain the object of their passion or vengeance, and then plunged the dagger in their own breasts. The following case, we think, cannot easily be paralleled. It is related by Gall in his physiology of the brain. The first lieutenant of a company in which Prochaska served became enamoured of the wife of the latter; but she resisted all his entreaties. The officer, irritated by this obstinacy, was guilty of some injustice to the husband. Prochaska appeared dejected and morose; but the following day he dined as usual, and seemed quite tranquil. On the fourth, both he and his

wife confessed, and took the sacrament. He dined in good spirits, and took a few glasses of wine. In the evening he and his wife went out to walk, and he expressed himself in terms of great affection for her. He asked her, however, if she had made a candid and full confession to the priest; and on being answered in the affirmative, he plunged a poignard in her breast. Seeing that she was not instantly despatched, he cut her throat across, in order to more quickly release her from her sufferings! He now repaired to his home, and seizing his two children, who were in bed asleep, he actually hacked them in pieces with a hatchet. These three murders committed, he repaired to the main guard, and, with the most perfect coolness and deliberation, detailed the whole particulars of the bloody deed. He concluded in these words:—"*Let the lieutenant now make love to my wife if he pleases.*" We are forced to accord with our intelligent author, M. Esquirol, in the following sentiment:—

"Can we believe that such a violation of the first law of Nature, that such an excitement of the imagination, that such an estrangement of the sensibility can be reconciled with the plenitude of health and the enjoyment of reason? Must not, on the contrary, that being have arrived at the highest pitch of delirium, who assassinates the wife whom he cherishes and the children whom he loves? Yet numerous facts prove that these unhappy wretches, before and after the execution of these acts, and in all things else but these acts, were perfectly sane. This sanity, however, is the sanity of the madman in his lucid intervals, which is liable to be instantly dissipated the moment that the hallucinatory idea crosses his mind. It is not that the symptoms or signs of delirium are wanting in those who commit suicide—but that there are wanting close observers to detect them." *Esquirol, p.* 239.

The instances of reciprocal suicide on record are not rare, both in ancient and modern times. The melancholy fate of Arria and Pœtus is well known to the reader of Roman History. Pœtus being condemned to death by the Emperor Claudian, his wife Arria disdaining to survive her husband, plunged a dagger into her breast, and drawing forth the reeking weapon presented it to Pœtus for a similar purpose. In our own country, and in the year 1726, Richard Smith, his wife, and their infant, were all found dead. They first destroyed their child, and then hanged themselves to the bed posts. They left the following sentence in writing on their table:—"We believe that God will forgive us. We have quitted this life because we were miserable and without resources; and we have put to death our infant to prevent him becoming miserable also." Such coolness and collectedness would appear to preclude the idea of insanity; but we think

the following fact will show that mental derangement was at the bottom of this horrid transaction. At the same time that Smith and his wife murdered their only child, and wrote the foregoing explanation, they also wrote to a particular friend of theirs, recommending to his special protection their dog and cat!

"In the year 1770 a fine young man at Lyons became deeply in love with a young lady of the same place, whose parents refused consent to their marriage. The young man burst a blood-vessel by accident, and the physicians gave it as their opinion that he could not recover. This being known, the two lovers contrived to meet, the lady bringing with her a brace of loaded pistols, and a couple of daggers. They embraced for the last time. They both fired at the same instant, and both fell dead on the ground! This example became famous, and unfortunately has been too often imitated since." *Esquirol.*

Suicide is sometimes feigned, especially by hypochondriacs and monomaniacs, for the purpose of obtaining some object, or harassing and annoying their friends. They talk a great deal about putting themselves to death, and when they do make any attempt, they take good care that they shall be surprised, or rather interrupted in the act. If not, they are feeble and abortive aims at their own life.

M. Esquirol doubts whether there be many suicides who are driven to this act by an irresistible impulse, and without design, without previous reflection. On questioning a great many people who had made attempts on their own lives, they almost all declared that they had gone voluntarily to the act—and not only so, but with great satisfaction, as to the goao f their earthly career, now a burden to them. Nor is it true that they, in general, come to these determinations, without much previous balancing and internal distraction of mind, as we shall see further on in detailing some remarkable instances.

We now return to Dr. Falret. This physician observes that, although suicides present an infinite variety among themselves, yet, considered in a general manner, the suicidal aberration of mind assumes two principal and opposite forms—the one characterized by a profoundly concentrated despondency and love of solitude—the other by a strong excitation, physical and moral. This last species of suicide generally takes place suddenly at the winding up of some great gust of passion, the symptoms accompanying it being as variable as the passions themselves. In such cases, the act generally succeeds the resolution so quickly that the physician is only called in to witness the catastrophe. In other cases, the march of the aberration is more slow, and the at-

tentive observer may often seize the traits and prevent the consequences. The countenance assumes a very great variety of expression, with some convulsive twitchings occasionally—there is more colour than natural in the face, with general symptoms of determination to the head; cephalalgia; insomnium; and great variations in the sensibility.

Some melancholics assert that they have experienced an inexpressible anxiety for some time before they attempted their lives. They felt their heads in a state of dreadful confusion, and sought self-destruction as much for the purpose of freeing themselves from their present sufferings, as in consequence of the original idea that haunted their minds. Others, on the contrary, have experienced a kind of beatitude, and have rushed on death as the secure harbour against every tempest.

Independently of these symptoms of cerebral affection, there are frequently marks of disturbed function in the abdominal or thoracic viscera—particularly of the stomach. The hypochondria are often tense, and the seat of a greater heat than natural. The action of the heart is generally above par and tumultuous; the respiration being, of course, in accordance. The march of the suicidal delirium, with excitement, is infinitely more rapid than that with despondency—and the prognosis is more favourable, because the desire of self-destruction, if it does not degenerate into insanity, will usually subside with the cause that has produced it. It is to be remembered, however, that this form readily assumes the intermittent type, is susceptible of renewal by the slightest causes, and is likely to become habitual after a succession of attacks. Our author coincides with Dr. Esquirol, that whatever *sang froid* may appear in the act of suicide when once determined on, there is always a great struggle in the human breast before this horrible resolution can be adopted.

It is in vain to discuss the question, in this place, whether suicide be an act of courage or cowardice. In a *medical* point of view the act is the result of intellectual aberration, whether produced by a gust of passion or a slow process of melancholy. It does not therefore fall under the heads of either fortitude or pusillanimity. Some *moral* reflections will be made hereafter, especially as they regard hypochondriacs who are susceptible of reasoning and arguments occasionally, and who may sometimes profit by the judicious *moral* advice of the medical attendant.

The chronic form, or that accompanied by great despondency, is often the ultimate stage of melancholia. It is not at once, but by a long train of perverted reasoning that man works himself up to this unnatural act. These individuals

become taciturn, morose, pusillanimous, distrustful. The future presents itself to their view under the most lugubrious aspect, and despair gradually becomes painted in their countenances. Their eyes become hollow, and tinted yellow or somewhat blood-shot—there is cephalalgia—pulsation in the head—sleeplessness, or sleep disturbed by frightful dreams—inappetency—constipation, with hard and unnatural fæces. It is in this state that they hatch their projects of suicide, and the diaries which some of them have kept of their sensations and thoughts, disclose the various kinds of death which they have contemplated and rejected, one after another, often for reasons the most preposterous or ridiculous. It is remarkable that, in these journals, they generally endeavour to hide their despondency and their mental aberration, while their moral and intellectual weakness is sure to be betrayed. They sometimes accuse themselves of insanity, and bewail their unhappy lot—at others, they argue forcibly and ingeniously in favour of their meditated suicide. Others again, subdued, as it were, by the force of the moral and religious principles which they had imbibed, represent to themselves that the act which they contemplate is contrary to the moral end for which man was created—fatal to the welfare and happiness of their families. Then ensues a conflict in their breasts. If reason and religion prevail, the project is adjourned—sometimes even abandoned altogether. If otherwise, the suicide is committed. Our author knew a woman with this tendency, but who had strong and proper principles of religion. It was a long time before she could reconcile herself to the act of suicide, and then it was upon the following ground of sophistry:—"There are no general rules, said she, without exceptions, and I am the precise exception in this case—therefore I may commit suicide without violating my religious principles."

Some people, having once conceived the idea of self-murder, are so horrified that they hasten to perform the act, in order to get rid of the terrible state of anticipation. Others appear to meditate for years on the bloody deed. Of this class was Rousseau. After drawing a piteous portrait of his proscribed and solitary condition, and of the state of his health, he adds, "Puisque mon corps n'est plus pour moi qu'un embarras, un obstacle à mon repos, cherchons donc à m'en degager le plus tôt que je pourrai." He poisoned himself by taking arsenic in coffee!

It has been supposed by some authors that the physical and moral feelings of the individual have great influence in determining the *kind* of death by which they free themselves from sufferings. But this, Dr. Falret thinks, is not verified

by experience and observation. In general these unfortunate beings choose that mode of suicide which appears the most prompt and the least painful. Some, however, think little about the means, their minds being too much occupied about the end.

The symptoms of suicide usually go on augmenting till the fatal event takes place; and after the individuals have once come to a fixed determination, their subtelty and address in eluding the attention of their friends and disguising their own feelings is astonishing, and ought to keep all concerned on their guard. This is no proof of the integrity of their intellects, as some have adduced. Those who are acquainted with the cunning and duplicity of maniacs will agree with us on this point.

There is reason to believe that the suicidal propensity has sometimes assumed a kind of epidemic character. We have already alluded to this event, as recorded by Plutarch, among the women of Miletus. Montaigne asserts that the Milanese, during a time of war, were affected in this way; and the same observation has been made by many historians and physicians. In the year 1806, more than 60 people destroyed themselves in the city of Rouen alone, during the months of June and July. The air had been very moist and hot at this time, and some considerable failures had involved in ruin a great number of individuals. In the same months of the same year, there were more than 300 suicides at Copenhagen, where commercial distresses were severely felt in consequence of what was called the "continental system," enforced by Bonaparte. The year 1793 presented the dreadful spectacle of 1300 suicides in Versailles—occasioned, we need not say, by the dreadful political convulsions of that memorable period.

Viewing the suicidal tendency as a corporeal disease, whether produced by moral or physical causes, it next becomes a question, in what organ or part is the disease situated? The celebrated Avenbrugger and several others assigned to the hypochondria the seat of the complaint, as many have done with respect to mania. Esquirol seems inclined to attribute the suicidal tendency to derangement of the biliary organs, at least in many instances, as would appear from the following among other passages. "Le passage d'un été sec un automne humide est plus favorable au developpement—des affections abdominales, *dont le suicide depend si souvent.*" *Art. Suicide.* M. Falret does not coincide with this last, nor with any of the authors who have written on suicide. He conceives that the disease can have no other seat than the brain, seeing that it is always accompanied by derangement

of the intellectual faculties. That the organ of thought is invariably affected, whether in function or structure, in people who commit suicide, we can entertain little doubt: but then the question occurs, is the brain primarily or sympathetically affected? M. Falret is of opinion that it is *almost always* primitively affected, and that lesion of the other organs is rarely the cause of the cerebral disorder which leads to suicide. We only differ from our author on the last point. We think the head is more frequently affected in a *secondary* manner than M. Falret imagines. We agree with him, however, on one point, namely, that moral causes predominate far over physical, in the production of suicide, as well as insanity in general. Yet still these moral causes—grief, we will take as an example, derange various other organs as well as the intellectual functions, and these derangements react on the sensorium, and contribute still farther to the cerebral disturbance. We shall not enter, however, into the controversy between M. Falret and his antagonists respecting the *seat* of suicidal alienation. The *immediate* seat must, of course, be the brain—unless it can be proved, that the organ of thought is in the thorax or abdomen. The *causes* of the intellectual disturbance may be, as we before observed, at a distance from the sensorium. By confounding the cause with the effect, all this discussion has been originated, and, therefore, we shall pass it over entirely.

In respect to the treatment of this species of insanity, little or nothing can be added to what is known of the treatment as regards mental derangement generally. All observers have dwelt much on the utility of exercise; and M. Pinel's wish, that a large enclosure were attached to every lunatic asylum where the patients might have the benefit of agricultural, or, at least, of horticultural employment, is likely to be realized by the new Commission for Lunatics in France. Horse and carriage exercise, as well as foot, is very beneficial. In all cases where there is excitement, and this almost always obtains at the beginning of the disease, local or general depletion will be necessary—warm baths to the lower parts of the body, and cold applications to the head—aperient and alterative medicines, and all such as tend to restore whatever function appears to suffer most.

"But what treatment can we employ in cases of *spleen*? Or where can we find enjoyments for the man who has exhausted the whole round of pleasures? The advice which Fenelon makes the shade of Diogenes offer to the tyrant Dionysius, may here be given.—"To procure for yourself an appetite, you must suffer hunger—to dispel the ennui of your gilded palaces, you must occupy the tub which I have lately vaca-

ted in the other world." Isolation is as necessary, M. Falret thinks, in suicidal, as in other kinds of mental alienation. In general, he avers, it is not of much use to enter into long reasonings or arguments with these people. It is proper to leave them rather abruptly, after saying something ambiguous that may excite reflections in the physician's absence. A little flattery, he thinks, is sometimes useful, and helps to draw from them the secret of their chagrin. "It is often of advantage to exaggerate the happiness that awaits them on their discharge from the asylum. Illusions are the opiates of moral sufferings; and is not this the time to administer them unsparingly, when they are the only means left of rendering life supportable?"—It is curious, that a repetition of the same cause (to a greater extent) that produced the suicidal tendency, has removed the affection altogether. Thus, Professor Moreau relates the case of a lady, who lost a considerable part of her fortune, and became suicidally melancholy. Some time afterward, the remainder of her fortune was lost also, and now she was cured by being obliged to procure the means of subsistence by manual exertions.

Vivid and unexpected impressions have frequently turned the suicide from his desperate attempt, and even cured him altogether. The history of our countryman who was attacked by two footpads on his way down to the Thames to drown himself, is known. He lived to the age of 80, and never afterward renewed the attempt. Although it is desirable not to show our suspicions of these unfortunate individuals; yet we must never remit our precautions till the danger is entirely over. These people endeavour to inspire us with confidence in their security, only to deceive us the more effectually, the moment they find a favourable opportunity. Petit has related a case, some particulars of which will be interesting, as bearing on this point. A soldier, who was greatly beloved in his regiment for his exemplary conduct and amiable qualities, became affected with suicidal melancholy, and fired a pistol into his mouth. The havoc made was dreadful; but, by great exertions, on the part of M. Petit, his life was preserved; and as, during the danger, he manifested great anxiety about his own recovery, and great gratitude to his surgeon, the latter entertained every hope that all suicidal tendency was dissipated. The whole was a manœuvre on the part of the patient, who, by this dissimulation, got more liberty than would otherwise have been accorded, and soon found means to put an effectual period to his existence, even while in the ward of the hospital!

M. Falret is correct in stating that, generally speaking, the sight of joyous or gay spectacles irritates the melancholics ra-

ther than affords them amusement. He has led people of this description to places of amusement, and afterward through the wards of hospitals where human misery was sufficiently evident, in order to mark the effects of these contrasting impressions. He always found, that the visits to the scenes of suffering were more useful to the melancholic than the opposite scenes—probably, by suggesting to the patient that his own condition was not the very worst in the world. It is probable that many people think themselves miserable because they are not acquainted with the misery of others. But it would be endless to pursue all the *moral* indications which present themselves in the management of suicides—and indeed of mental derangement in general. It is in the important branch of moral *therapeutics* that the genius and discernment of the physician are more conspicuously displayed, than in the physical treatment of the insane.

We are now to make a few reflections, legal and moral, on suicide. One of the authors before us, M. Falret, considers all laws against suicide as completely useless, as well as unjust, and even dangerous. M. Esquirol seems to be of a different opinion. "Suicide (says he) has become more frequent since the laws which condemn it have lost their vigour. For the interest of society, therefore, the legislature ought to enact laws—not so much for the punishment as the prevention of the crime." He does not hint any particular kind of law, but he instances (we should suppose by way of approval) the present law in Saxony, by which, the body is given up for dissection.

We know that the law of England imposes dishonour on the corpse, and confiscation on the property of the suicide, provided he be in the possession of sound mind at the time the act is committed. As the suicide is now almost invariably, and very properly, pronounced a lunatic by the coroner's jury, the law is a mere dead letter, and, therefore, we cannot at present, judge of the influence which repressive laws might exert in the prevention of the crime. We have no doubt, that the hands of very many hypochondriacal suicides, who are perfectly capable of reasoning upon most subjects, would be arrested by laws which they knew would certainly be put in execution. It is not safe to infer, as M. Falret has done, that because a suicide is not restrained by the ties of love, friendship, religion, or morality, so neither would he be restrained by any law whose operation would bear on his dead body. The history which M. Falret has quoted in another place, of the stop put to suicide among the women of Miletus, by the edict which exposed the naked bodies of the dead in public places, is very much against his own doctrine. M.

Falret has appealed to the same laws which have been enacted in various countries against duelling—all which have been abortive in preventing the crime. True; but here, as in the case of suicide, the laws have slumbered, and, therefore, are no longer dreaded.

We agree, indeed, with Dr. Falret, that penal or severe laws against the dead body, or the property of the suicide, would be, in the great majority of cases, useless, because the greater number commit the act in a state of insanity that renders them deaf to all laws. He says it would be more wise to fortify the minds of men against this act, "by maxims of religion, philosophy, and a just appreciation of the laws of honour." We fear that acts of Parliament will have little influence in inspiring religious or moral sentiments into people's minds at this time of day! We consider the following project as completely chimerical, as any thing in Plato's Republic, or Moore's Utopia.

"Il faut inspirer à chaque citoyen le gout de son état; *il faut le soustraire à l'empire des passions dont il est le victime;* (! !) il faut s'efforcer d'arreter less progrés du froid égoisme en resserant les liens de la parenté; il faut regulariser l'amour de soi-même." 282.

Yes! if these things could be done by act of Parliament, then, indeed, we should soon have the Millennium so long predicted! In a ship, or a regiment, where the minds as well as the bodies of men are in subjection to the commander, something of this kind might be effected; but, in a community at large, the attempt would certainly be abortive. By this we do not mean to insinuate, that wise laws and good governments may not have great influence on the minds and morals of a people—we only argue, that no laws or edicts can come so home to the breast, as to withdraw men from the influence and operation of human passions.

Dr. Falret thinks, that the narratives of cases of suicide in the public prints, have considerable influence in rendering the act more familiar to people's minds, and, therefore, more readily fallen into. It is with this as with public executions, much may be said pro and con.* We observe, that Sir Walter Scott, in his "Heart of Mid-Lothian," inclines to the opinion, that the "dreadful note of preparation" and

* We think it will be allowed by every one who is in the habit of perusing the public papers, that the instances of suicide, since the melancholy death of the Marquess of Londonderry, have been more numerous, by far, than at any period in the memory of any man now living. Yet, excepting the single class of agriculturalists, there is not near so much distress operating now as at many former periods.

the slight of capital punishments, have an effect in deterring from criminal vices, rather than of rendering the human mind callous to the idea of death as the price of crime.

We shall conclude this article with a few, and but a few, moral reflections on the melancholy subject which has long been termed the disgrace of our island, but which is now too prevalent in most countries of Europe. Viewing suicide as generally, we might say always, the act of a mind unsound for the moment, it can hardly, in strict justice, be considered a crime. The criminality, we imagine, consists, principally, in giving way to those passions and reasonings which pave the way to the desperate act. The physician very frequently comes in contact with hypochondriacs who have suicide in contemplation, and who discourse on the subject with great sang froid. These people will reason with great force, and puzzle the medical attendant who has not thought much on the subject. We are convinced, that it is with these in particular, that some good may be done by judicious representations. Where proper principles of religion and morality have been early instilled into the mind, and even *in part* retained, the arguments against suicide are easily supported, and are irresistible: but unfortunately, the spread of scepticism is now to such an extent, that this, the strongest, chain of argument, will not be listened to. Of what use would it be to represent it to the materialist, (at least the modern materialist who disbelieves in the immortality of the soul) that "by continuing in the world, even when life is hateful to ourselves and useless to others, we retain the opportunity of meliorating our condition in a *future state.*"* The sceptical hypochondriac answers that, in the first place, he does not admit of a future state—in the second place, as he did not come into this world by his own consent, as a soldier comes into an army, so no just law can compel him to remain here longer than he wishes. It is in vain, in fact, to urge any religious plea for bearing up against mental or physical sufferings, to the consideration of the sceptic. But it may be urged home on these people, that suicide is, at least, a *selfish* act, and cannot lay claim to any portion of fortitude—or, perhaps, of bravery. It is quite evident, that life, to him, is a greater evil than death, and, therefore, regardless of what may be the consequence to others, he seeks that which seems most agreeable to himself. Such an act as that of suicide never can be circumscribed in its influence to the individual alone who commits it. The bad example to the world at

* Paley.

large; (for did mankind throw off all horror at this act the foundations of society would be broken up) the stain on the memory of the dead, and, consequently, the stigma on the relations of the deceased; the ingratitude to Nature and fortune, for enjoying the sunshine, but shrinking from the storms, of life—these and many other cogent reasons for setting an example of patience and fortitude under the ills to which all are liable, and from which few escape, ought to be pressed upon the suicidal hypochondriac with all the eloquence and earnestness in the power of the physician.

II.

Memoir of the Life and Writings of John Gordon, M D. F. R. S. late Lecturer on Anatomy and Physiology in Edinburgh. By Daniel Ellis, F. R. S. E. Edin. 1823. pp. 238, Duodecimo.

The biography of medical men is but scanty, and the greater part of even that which exists, is not peculiarly interesting. The tenour of the lives of the generality of our profession is too even,—too little checkered by eventful circumstances to give zest and interest to a narrative; and its duties and anxieties are so uniform, and happen so alike to all, that one day may be said to tell unto another its unvaried history. In this deficiency of personal anecdote, and of variety in the scene of action, the biographer must of necessity draw his materials chiefly from the writings of the subject of his memoir, and his great aim must be, to unfold the circumstances which gave rise to, and assisted the progress of, his opinions, and to mark the influence which they exerted on the theories and practice of the times. A work of this nature, though, perhaps, not strictly conformable to the rules of regular biography, might indubitably be rendered very interesting, and, which is better, very useful, provided the person whose life and labours it recorded, was confessedly one of pre-eminent acquirements, and whose opinions had, in fact, influenced those of his professional brethren.* But if employed in the

---

* Such should be a life of Dr. Cullen, a memoir of whom has been read to the Royal Society of Edinburgh, by Dr. Thomson. As their Transactions are in the hands of few professional men, might we suggest to the Doctor the propriety of his publishing this work in a separate form?

eulogy of a person yet unknown to fame, or but partially so, whose talents were appreciated only by his friends, and those who had come in contact with him, and had not advanced him, without question, beyond the level of his compeers,—whose labours could bear comparison with theirs, and it should be doubtful to whom the palm should be awarded,—if such were the case, the work could scarcely be expected to excite any general attention. And such appears to be the case with the late Dr. Gordon;—his fame was in its infancy, and he was taken away ere he had gained the eminence which seemed within his reach,—and we, consequently, doubt whether, beyond the circle of his friends and pupils, the work before us, so honourable to his memory, and to the feelings and taste of its author, will have any great circulation.

Dr. John Gordon was a younger son, and born in Forres, on the 19th of April, 1786. After receiving the rudiments of education, partly under his paternal roof, and partly in the grammar school of his native place, he was removed, towards the end of 1799, to the University of Edinburgh. Here he continued, for about two years, to prosecute his classical studies, after which time he became an apprentice to Dr. Thomson, Professor of Surgery, and so advantageously known to the profession by his Lectures, and Researches into Syphilitic and Varioloid Diseases. By punctuality in the discharge of his duties, and diligence in study, he secured the approbation of his preceptor, who subsequently proved one of his best and most attached friends.

During his apprenticeship, Dr. Gordon, as is customary with young men in similar situations, attended the medical classes in the University, and those of the more distinguished private lecturers. In 1803, he was elected a member of the Royal Medical Society, in the proceedings and discussions of which, he "distinguished himself as well by his knowledge and ingenuity, as by the ease and gracefulness of his elocution." No notice is taken of the dissertations which he read before this body, though one of them, at least, was superior, we believe, to the generality, and rested its conclusions on original experiments. In this Essay, as we learn from the excellent Thesis of Dr. Cheyne, he anticipated Dr. Halliday in some of his most interesting statements, and was the first to collect the facts illustrative of the condition of the lungs in wounds of the thorax, and more particularly in emphysema.*

* It may be not unnecessary to quote the passage.—"In dissertatione Doctoris Gordon nuper defuncti, et tam merito defleti, facta hac de re primum collecta atque elucidata erant. Doctor Halliday laudem minime parvum obtinuit, ob

In the spring of 1805, Dr. G. obtained his diploma from the Royal College of Surgeons of Edinburgh, and on the 24th of June in the same year, he proceeded to the degree of Doctor in Medicine in the University. It was the intention of his friends that he should now enter the service of the East India Company, but, to this plan, Dr. G. himself disinclined, and, at the suggestion of Dr Thomson, resolved to become a Lecturer on Anatomy and Physiology. He began immediately to qualify himself, by dissection and study, to teach these branches of medical science; and the better to accomplish this object, he, in the winter of 1805, visited London, and became a pupil of the School in Great Windmill Street, then under the able direction of the late Mr. Wilson, from whose lectures, he acknowledges himself to have derived not only profit, but pleasure.

On his return to Edinburgh, in the summer of 1806, he continued to prosecute, with unabated ardour, his favourite studies; and, at the commencement of the winter session, was elected one of the annual Presidents of the Medical Society. This was a circumstance peculiarly fortunate, since, here, he acquired the friendship of his ingenious biographer, who was his associate in office, and who, even at that period, was engaged in those inquiries which have placed him in such a distinguished station amongst physiologists.

"The circumstance," says Mr. Ellis, "of my having cultivated a small portion of that field of science in which he exerted himself with so much ardour, served to increase the interest we took in each other's pursuits, and to multiply the occasions of bringing us together. He who has himself been engaged in the doubts and perplexities of original inquiry, can best estimate the value of a friend, ready, at all times, to hear with patience, and discuss with candour, the yet immature views presented to him;—to correct with delicacy what may be erroneous—with honesty to suggest what may be deficient—and zealous to approve that which may be just and true. Such was the friend I had found in Dr. Gordon, and such too, alas! is the one I have lost by his death." 15.

It was now time for Dr. G. to enter upon his public life. He had no expectations of any material assistance from his father, and was thrown, at the very outset, on the resources of his own talents and industry. During the summer of 1807, on the suggestion of Dr. Thomson, with whom he at this time

---

explicationem factorum eorundem quam dedit. Sed haud incertum est eum copiose a dissertatione Doctoris Gordon mutuatum; et laus ei data quæ alteri debebatur, ostendit, eum non satis auxilium acceptum agnoscere."—*Diss. Med. Inaug. de Emphysemate*, p, 39, *Edinburgh*, 1820.

resided, he gave some demonstrations in osteology to a few of his particular friends, who were soon satisfied that he possessed every qualification requisite in a teacher of anatomy. Encouraged by their approbation, he announced, in December of the same year, a course of public demonstrations, which was attended by a few pupils, the number of whom rapidly increased. At first Dr. G. taught anatomy and physiology in conjunction, but, from experience, having become convinced, that this plan could not be pursued with advantage to either of the sciences it professed to teach, he was induced, in the summer of 1813, to commence a separate course of lectures on the latter, which had now become his favourite study, and to which he devoted himself with great ardour. Those who estimate aright the extent of these branches of our art, may think with us, that the pages which the author has written in justification of this plan of Dr. Gordon's, unnecessary. In these admirable lectures, he presented a fuller and more philosophical view of the science, than had, perhaps, ever before been given in this country. The plan, an account of which occupies a considerable portion of the volume, was his own, and framed with great judgment, so as to bring under review, in not an unnatural succession, the varied topics of discussion. In discoursing on any function, he was accustomed, first to state the facts which had been ascertained;

"And when the inferences which arose coalesced into a series of propositions, and assumed the form of a theory or general law, it was exhibited in the plainest language, and with such reservations, doubts, and exceptions, as the state of our knowledge, or his own reflections, might suggest. Though always desirous of proceeding by the method of induction, yet, where that was impracticable, he did not wish to banish all hypothetical views from physiological investigation. He knew well, that a collection of mere facts, however complete, possess, comparatively little interest or value, unless an attempt be made to arrange and connect them, by the exercise of our reasoning powers: that, in the present auspicious period, when the human mind is so little disposed to yield to any authority save the convictions of its own reason, hypotheses produce few of the evils which they formerly engendered; and that, professing to rest, as they must now do, on facts derived from observation and experiment, they cannot maintain their ground when better experiments and observation shall conduct to juster views. Till this shall happen, they facilitate the apprehension and remembrance of facts; give to them an interest which they could not otherwise command; and, by exciting attempts either to verify or disprove them, suggest often new researches, by which new truths are disclosed, and the boundaries of science enlarged. Hypotheses such as these, Dr. G. did not refuse to entertain; but, he discarded from his lectures all those fanciful speculations, resting, not upon facts, nor even on rational analogies, but on a set of undefined and undefinable terms, invented to conceal

ignorance and protect error, and, therefore, contributing so much more to extend the surface, than to increase the solidity of science." 118, 120.

As a lecturer, Dr. Gordon has been seldom equalled, and perhaps never surpassed. His personal appearance was very prepossessing, and no sooner had he entered the room than all was quietness and attention. His reputation as a teacher of anatomy was very high.

"He possessed," says his biographer, and the statement is nothing more than correct, "a neatness and dexterity of hand, which peculiarly qualified him for anatomical investigations, and a patience and perseverance in pursuit not easily to be tired out, or subdued by difficulties. During the winter session, he laboured incessantly in preparing the objects to be demonstrated in his lectures; and, by his manner of exhibiting and describing them, removed much of the disgust liable to be excited by attendance on an anatomical course. Without the smallest approach to unnecessary refinement, or affectation of seeming delicacy, he contrived to exhibit parts with such attention to neatness and propriety,*—and delivered his demonstrations in a manner so clear and interesting, as to render his lectures not only instructive, but amusing." 212.

But his lectures on physiology were still more attractive, and afforded him a wider field for the display of his talents.

"With clear conceptions of his subject, and just and comprehensive views, he expressed himself in language so simple and precise, and with so much ease and grace, as to secure always the fixed attention of his audience, and not unfrequently suspend them in silent admiration. His elocution was uncommonly distinct and pleasing, possessing even a degree of musical harmony; and the elegance of manner, which he uniformly displayed, was not the result of study or of art, but the happy effect of good taste improving on the free gifts of Nature. Deeply impressed with the importance of the science he had undertaken to teach, and ardent in the study and improvement of it, he was anxious to communicate to his hearers, not the knowledge only which he possessed, but a portion of that real love for the science with which he was himself animated. His pupils came therefore to his class, not with the desire simply of being taught, but the expectation of being gratified—not merely to perform certain stated duties, and pass an hour in listless indifference, or perhaps settled disgust, but to acquire knowledge in a manner the most inviting, and bear away with them a love for the studies in which they had been so agreeably occupied." 214.

* In this respect in particular we must needs be allowed to say that he was a perfect contrast to lecturers on anatomy in general, and that they would do well to imitate his example.

If, as a lecturer, Dr. G. had a fault, it was what we must be allowed to term his over-scepticism. That in a science encumbered with so many "false facts" and foolish hypotheses as physiology, much caution and judgment in their selection is necessary, we readily allow, but in him we do think it was carried to a somewhat blameable excess. It is needless to particularize, for on almost every subject doubts were started, and the student was left in uncertainty. It may require, it is true, much more pains to make young minds perceive the difficulty, than to understand the solution of a question; but when objections are urged to every solution, they are apt to acquire the pernicious habit of hunting for a flaw in every train of argumentation, and of imagining some deficiency in every experiment; and more pleased when they can detect some such imaginary fault, than anxious to perceive the beauty of the one, or the aptness of the other.

From a desire to finish at once what we had to say of Dr. G. as a lecturer, we have strayed from the narrative, to which we now return to give some account of his literary labours. In October 1808, having been admitted a Fellow of the Royal College of Surgeons, he chose for the subject of his Probationary Essay the "Dislocations of the Thigh Bone." To verify the accuracy of the descriptions of others, and rectify the discordance that existed among them, he not only studied the cases recorded, but had recourse to experiments on the dead body.

"To discover what muscles contributed to retain the head of the bone in its displaced situation, and what were most calculated either to oppose or favour its return, Dr. G. produced artificially, on the dead body, the several varieties of luxated femur that occur in practice. Previously however, to these operations, the soft parts surrounding the articulati n were exposed by dissection; so that he might be able to mark at once the efficiency of certain parts in resisting luxation, the position which the head of the bone occupied when the luxation had taken place, and the derangement induced among the muscles So correctly," we are told, did this artificial imitation correspond with the dislocations that occur in the living subject, that it was found exceedingly difficult, if not altogether impossible, to produce artificially any other species of dislocation than those which actually present themselves in practice; and the external character of the real accident in the living body and of its imitation in the dead one, always corresponded closely with each other." 19.

But we cannot enter into any detail of the information thus gained:—suffice it to say, that the Essay seems highly creditable to his talents and ingenuity.

Dr. G. was elected a member of the Royal Society of Edinburgh in January, 1812, and he soon afterward communi-

cated some very interesting observations on the case of James Mitchell, a boy born blind and deaf, which are published in the Transactions of that body. But the principal work of Dr. G. is his "System of Human Anatomy." In 1815 the first volume was given to the public, and though the greater part of the materials of the subsequent volumes were collected, yet he lived to finish no more of his original design. It was his intention, in this work, to exhibit not only a full view of the science as taught in this country, but also to give the latest discoveries and improvements of the continental anatomists. The arrangement adopted seems entitled to great praise, and nothing can exceed the general perspicuity and conciseness of its descriptive language.

"He uniformly addresses himself to the eye, avoids all discussion of questions of doubt and opinion, and enters into minute details with a clearness and precision which those only who write from actual observation can command." 38.

His account of the structure of the skin may be specified as one of the most interesting pieces of descriptive anatomy extant; and that of the brain and nervous system is very elaborately written. His minuteness and precision may be ridiculed by those who make it their chief boast, and regard it as the highest excellence of the anatomist, to be able to cut at once upon this ramulus of an artery, or that ramusculus of a nerve; but they who are convinced that anatomy must be the principal guide of the physiologist in his disquisitions, will justly mark them as his chiefest excellencies. Of the work itself we shall add no further account, as it has been for many years before the public, to whom, we should hope, its merits require not now to be stated.

The next work of an anatomical nature from the pen of Dr. G. was called forth by the claims of Gall and Spurzheim. Perhaps no one in this country, from his previous studies and inquiries, was better entitled to give an opinion upon the subject; and looking upon the whole doctrines taught by these gentlemen "as a piece of thorough quackery from beginning to end," he expressed that opinion in a noted, but too severe article on the subject, in the Edinburgh Review.

Mr. Ellis has urged several reasons to rebut the charge of undue severity or enmity which that article is said to breathe; and the treatment which Dr. G. subsequently received from Dr. Spurzheim, when the latter visited Edinburgh, was not calculated, he thinks, to make the former regret that he was its author. Mr. Ellis gives a succinct historical account of the anatomical discoveries of Gall and Spurzheim, and afterward a copious analysis of Dr. Gordon's "Observations on

the Structure of the Brain," comprising an estimate of their discoveries. In this work he is said, by Mr. Ellis, to have *demonstrated* that their methods of dissection were not original, and not preferable to those more commonly followed; that their physiological principles were very questionable, and had seduced them to describe as facts what was only conjecture; that they had committed many errors in their anatomical descriptions, and had even described some parts which had nothing but an imaginary existence; and lastly, that the greater number of their supposed discoveries which were real, had been long known to anatomists. This very learned Essay, we are told, procured for its author the thanks of several philosophers and anatomists, and among these, of Cuvier, of whose approbation any man might be proud. It drew from Dr. S. a pamphlet designed as a reply, not to Dr. G. only, but to his other opponents in Britain.

"As an answer to my Treatise," said Dr. G. addressing his class, "I cannot regard it. It seems intended to be read only by those who have not perused my 'Observations.' It attributes to me opinions respecting both the functions and the structure of the brain, which I have nowhere expressed, either in my lectures or books. My objections were directly and pointedly urged; and they ought to have been as directly replied to; but, instead of this, the writer studiously evades them all." 88.

We believe, however, that all liberal-minded men on this side of the Tweed, agree in censuring the tone of Dr. Gordon's article in the Edinburgh Review, and in acknowledging that the mode of dissecting the brain adopted by Gall and Spurzheim is infinitely superior to that in general use.

The last work of Dr. Gordon's was a fasciculus of plates in octavo, exhibiting a series of representations of those parts of the human skeleton, with which it is of most importance for the physiologist and medical practitioner to be accurately acquainted. Of this work it may be sufficient to quote, in proof of its excellence, the opinion of Dr. Baillie. "The engravings," says that distinguished physician in a letter to the author, "are extremely well executed, the various sections well imagined, and the short descriptions possess all that precision for which you are distinguished." 103.

Besides these, Dr. Gordon was the author of several essays in various periodical publications, which are not noticed in the life before us, and which we may therefore be excused for passing over in equal silence. Engaged in the pursuits of anatomy and physiology, Dr. G. had at first declined all thoughts of engaging in medical practice; but a few years before his death, having mastered most of the difficulties which the earlier stages of his life presented, and his duties,

as a teacher, having become comparatively easy, he did not refuse to enter upon its duties; and his worth of character, and amenity of manners, introduced him, without effort or solicitation, to a considerable share of the most respectable practice. Thus occupied, and with the prospect of "honours and dignities" before him, he was, in the commencement of June, 1818, attacked with that disease which, on the 14th of the same month, terminated his earthly career.

Dr. G. was married in 1812 to Miss Rutherford, between whom and himself a mutual esteem and affection had long existed. By this lady he had four children, of whom one son and two daughters survive their father. In his family, and in the circle of his friends, he was exceedingly beloved.

"The cheerfulness of his nature—the equal and happy balance of all the powers of his understanding—the large range and variety of his accomplishments, and the sweet pliability of his spirits, fitted him, in an eminent degree, for all the pleasures of society; and, while he reserved his love and confidence for the generous and intelligent, who formed the inner circle of his friends, he had the utmost indulgence for the ordinary defects and infirmities, and lived easily and kindly with the whole range of his acquaintances." 208.

Nothing could better evidence the estimation in which he was held, than the strong sensation which his death produced, and which was altogether unprecedented in that of a private individual, whose merit was his only claim to public favour. A large portion of the genius and learning of the northern metropolis, as well of the other learned professions as of that to which he belonged, honoured his obsequies by their presence:—but among the persons who attended this solemn ceremony, none bestowed on it greater interest than the members of the Royal Medical and Physical Societies, to which belong the greater number of senior students who frequent the University. On the mournful occasion of his death, they assembled in their respective halls, and passed resolutions expressive of their admiration of his talents, their sorrow for his loss, and their desire of testifying respect for his character by accompanying his remains to the grave.

Such is the brief analysis of this little work which our limits will permit, but it seems sufficient to give our readers a tolerable idea of what interest it is calculated to afford. It is, as we have already said, highly creditable to the feelings and good taste of its author, equally free from the affectation of morbid sensibility, and of overweening and indiscriminating partiality; and yet it can scarcely be expected that the profession in general will estimate so highly as he has done the talents of its subject, since that estimate is founded

partly on a calculation of what might have been effected; and partly on grounds of which a friend only can be a judge. To most, we fear, the affecting lines of the poet will appear not altogether inapplicable.

> "He now is dead, and all his glory gone,
> And all his greatness vapoured to nought,
> That as a glass upon the water shone,
> Which vanisht quite as soon as it was sought;
> His name is worn already eat of thought."
>
> SPENCER.

III.

PHYSIOLOGY OF THE CIRCULATION.

1. *On the Principles of Inflammation and Fever.* By C. E. LUCAS, M. D. Octavo, pp. 304. London, 1822.

"Causæ proximæ investigatio ad cognitionem morbi ducit amplissimam."
CELSUS.

2. *An Experimental Inquiry into the Nature, Cause, and Varieties of the Arterial Pulse; and into certain other Properties of the larger Arteries, in Animals with Warm Blood; illustrated by Engravings.* By CALEB HILLIER PARRY, M. D. F. R. S.

WE believe with Celsus, as expressed in Dr. Lucas's motto, that the *investigation* of proximate causes increases our knowledge of the nature of diseases, even although we may never discover those proximate causes themselves—in the same way as the search after a supposed hidden treasure led to riches, though the treasure itself was merely imaginary. On this account we should be sorry to find the inquiries respecting inflammation and fever abandoned, because we have not yet discovered clearly their proximate causes, or rather their incipient morbid phenomena. A great deal of light has been thrown on the nature and treatment of these diseases during the last twenty years; and much curious (we hope ultimately useful) physiological knowledge has been elicited in the same period, both in this and in other countries. Facts when once ascertained, and experiments when once made, are no longer the property of individuals but of the republic of science at large:—they may even be legitimately turned against the doctrines they were first called in to support. Indeed it is hardly in the nature of things that the surest conclusions can be drawn by the first observers of facts or projectors of experiments. It requires the conflicting opinions, argu-

ments, and views of various individuals to adjust the value of orginal data, and keep them at their proper level in the scale of real knowledge afterward. We are not sorry, therefore, to see authors, whose pretensions to originality are very limited, taking a careful and comprehensive review of the facts already in our possession, since it is probable that much valuable information is sometimes lost from the want of a proper application of it in this way. It is to remedy this last defect that Dr. Lucas has issued his volume into the world, "trusting that the consideration of facts bearing upon subjects so deeply connected with the science of medicine, will not prove wholly uninteresting."

It is evident that in an investigation of the principles of inflammation and fever, the state of the nerves and blood-vessels, healthy and morbid, must form the greater part of the inquiry. Dr. Lucas accordingly sets out with some physiological observations on the nervous system. Like Dr. Philip, he limits the *nervous power* to that resident in, and exercised by, the nerves, (though probably derived from the brain and ganglia) whilst the power exercised by the brain and spinal marrow conjointly, is designated *sensorial*. By the *former*, of course, the functions of conveying impressions to and from the sensorium, and thereby giving birth to sensation, motion, secretion, &c. are performed;—while the sensorial power, as far as relates to the functions of animal life, is limited to the receiving impressions from, and communicating them to, the nervous power, comprising therefore the power of volition. The opinion of Dr. Philip that the power of motion is inherent in the muscular fibre, and distinct from the nervous, which last is only a stimulus calling the former into action, is not adopted by Dr. Lucas. "This (says he) is only interposing another and unnecessary link in the chain of causation, as not being proved by his experiments."

"Thus he (Dr. Philip) infers that the heart and blood-vessels are independent of the brain and spinal marrow, acting by their own inherent muscular power, because experiments prove that their functions may be continued for a certain time after the removal of those organs. But this is readily understood, when we recollect that they more immediately depend upon the ganglionic system, in itself forming, in the words of Dr Philip, 'a secondary centre of nervous influence.'". P. 4.

The other experiment of Dr. Philip, by which it appeared that the excitability of muscles, whose nerves are entire, is sooner exhausted by the application of salt to their naked fibres, than when all communication with the sensorium is cut off by the division of their nerves, from which Dr. P.

concludes, that "the nervous influence, so far from bestowing excitability on muscles, exhausts it like other stimuli," our author also endeavours to invalidate.

"The obvious explanation, then, of the experiment in question, is, that the power of muscles, subjected to the double exhaustion of the agency of the will and the stimulus of the salt, is sooner exhausted than that of others subjected to the latter only from the power of volition having been withdrawn by the division of their nerves." 5.

We may also, says Dr. Lucas, suppose that muscles more readily obey, and are therefore sooner exhausted by their own natural stimulus, than by an unnatural one.

"Although, therefore, these experiments certainly prove that the muscles act by a power accumulated within themselves, yet I see no reason why this should be any other than the nervous power, especially as it is proved by other experiments, that the power both of the voluntary muscles and of the heart and blood-vessels 'may be influenced by agents acting through the nervous system,' even to its total extinction. There does not seem, therefore, from these experiments, any sufficient reason for the admission of the muscular power as distinct from that exercised by the nerves." 6.

Among numerous just, but not novel observations on the nervous system, Dr. Lucas deplores our ignorance of those lesions of the brain and nerves, or sensorial and nervous powers, which often destroy life without leaving cognizable traces of disorganization. In such cases we have only the evidence of symptoms during life, and the experience of the juvantia and ledentia, which, by the way, were all the aids possessed by the fathers of medicine, who could know little or nothing of morbid anatomy, and yet practised with considerable success. It happens, however, that in most diseases, even where the nervous system is primarily and exclusively affected, that the vascular system is soon drawn into morbid action; and here it is that pathological anatomy comes in to our assistance.

The second chapter of Dr. Lucas's work is on "the action of the blood vessels;" and as it is necessary that we should have as clear an idea as possible of the state of the sanguiferous system in *health*, we shall here give some account of the second work at the head of this article, not only to make its valuable contents diffusively known, but to correct a host of misapprehensions and *misrepresentations* which have gone abroad respecting the opinions of that excellent physician, (Dr. Parry,) on the subject of the circulation. We too have been misconstrued, to say the least of it, and therefore we shall endeavour, in this article, to lay before our junior brethren as fair a statement of this intricate subject as our limited powers will premit.

Dr. Parry's work opens with a synthetical view of the experiments on which the subsequent deductions of the essay are founded. The experiments were made on different animals, and on different arteries of animals. They all tended to prove one leading fact, that arteries suffered no dilatation or contraction during the systole or diastole of the heart. We shall introduce one of the experiments as an example.

September 22, 1814. "In a ram, both carotid arteries were laid bare by Mr. George Norman, in the presence of Mr. Coombs, two others of his pupils, and myself.

"Notwithstanding the animal was greatly agitated, there was not in either carotid the least appearance of dilatation during the systole of the ventricle, or contraction during its diastole: nor, except when the animal breathed, was there any degree of locomotion perceived in these arteries, which remained completely quiet and at rest. Nevertheless, when either artery was compressed between the finger and thumb, the pulse was very strong and distinct.

"Both arteries were adequately tied by Mr. Norman, each with a single ligature; after which, the ram stood and walked about well, apparently suffering little inconvenience." P. 2.

A great variety of experiments are afterward detailed; but all tending to establish the fact, that no actual dilatation or contraction takes place in the arterial system from the action of the heart.*

We shall pass over the chapters on the structure, and on the power of arteries very cursorily. Dr. Parry's reasonings and experiments on the relative proportions and power of tonicity and elasticity in arteries, are, as usual, acute and accurate. They lead to conclusions very different from those of preceding physiologists, and more especially of Mr. Hunter. That gentleman considers—

"The natural pervious state of an artery, to be that to which the

---

* We may just state one here, where, from the size of the animal and of the vessel, there could be no source of fallacy. There were present Mr. Norman, Dr. Charles Parry, Mr. Coombs, Mr. Sewel, and others. Several inches of the right carotid artery of a large old horse were laid bare. The pulse was 48 in the minute. The artery was long and attentively examined. "No person could discover the least degree of dilatation or contraction of the artery during the systole or diastole of the heart. No motion of any kind occurred from respiration. In reality the artery was altogether quiescent." The vessel was examined with a strong lens, and with threads slightly wound round it. "But we could not discover any change of place, whether absolute or relative in these threads." P. 20. Numerous experiments of this kind made in the presence of many witnesses, must surely put the question at rest, respecting the visible or appreciable dilatation or contraction of arteries corresponding with the systole and diastole of the heart.

elastic power naturally brings a vessel, which has been stretched beyond, or contracted within, the extent which it held in a state of rest. The stretched is that state produced by the impulse of the blood in consequence of the contraction of the heart; from which it is again brought back to the natural state by the elastic power, perhaps assisted by the muscular." *On the Blood*, p. 116.

From this and some other passages, Mr. Hunter appears to think that the natural state of an artery during life is that to which the elastic power spontaneously brings it, when no longer forcibly dilated by the systole of the heart. But Dr. Parry's experiments tend to prove, on the contrary, "that during health the larger arteries of a living animal, as well under the diastole as the systole of the left ventricle, are in a state of distention, to which they are forcibly impelled by their contained blood, against their mechanical power of elasticity." 70.

In order to elucidate this point, Dr. Parry caused two ligatures, an inch and a half distant, to be made at the same instant on the carotid of a living sheep. The artery, measured half way between the ligatures, was $\frac{2}{4}$ of an inch in circumference. The blood being suffered to flow out of this included part, from a lancet puncture, the artery, in the same spot as before, measured in circumference only $\frac{1}{4}\frac{8}{0}\frac{9}{0}$ of an inch. Hence the circumference of the artery was immediately reduced $\frac{4}{4}\frac{0}{0}\frac{0}{0}$ of an inch by the mere evacuation of the blood contained in the artery. In a horse, the circumference of the right carotid artery was $\frac{3}{4}\frac{1}{0}\frac{8}{0}$ of an inch. It was firmly tied at some distance before the part measured, and a second ligature was applied an inch beyond the first. In an hour, the intermediate portion was punctured. The blood having coagulated in the artery, little more than serum flowed out. The vessel being now measured in the same place as before, was found to be only $\frac{2}{4}\frac{5}{0}\frac{2}{0}$ of an inch in circumference. In sixteen hours after the death of the animal by bleeding from the left carotid, the circumference of the artery at the same point as before, was $\frac{3}{4}\frac{1}{0}\frac{8}{0}$ of an inch. Hence, the *elasticity* was as $\frac{1}{4}\frac{3}{0}\frac{1}{0}$ of the circumference of the artery, and the *tonicity* as $\frac{1}{4}\frac{8}{0}\frac{1}{0}$.

"From these two last experiments, says Dr. P. it appears, that the forced distention of the artery does not necessarily depend on the impulse of the blood from the systole of the ventricle, since it existed when the communication with the stream of blood from the heart was interrupted by a ligature.

"As during the common circumstances of health, arteries are naturally distended beyond that degree, to which they would spontaneously contract by their elastic power, so they are capable of suffering a still greater degree of distention, from increased fulness of

blood in the general system, or from those excessive determinations of blood to particular parts, which occur, on various occasions, in the animal frame. Thus it is generally admitted, that, if the passage of the blood through one arterial trunk is intercepted, the collateral branches, supplying the part, undergo an increased distention, in order fully or partly to compensate the loss.

"This conclusion was rendered very probable by what occurred in the ram, Experiment 15; in which one carotid had been tied nearly eleven months before, and the other was found much larger than any that we had before observed.

"In order, however, more accurately to investigate this point, the right carotid of a small ewe having been found to be in circumference $\frac{233}{400}$ of an inch, the left carotid was tied; a few minutes after which, the right had gained in circumference $\frac{24}{400}$ of an inch.

"In another ewe, the right carotid being $\frac{233}{400}$ of an inch in circumference, was again measured twelve minutes after the left had been tied, and was found to have gained in circumference $\frac{28}{400}$ of an inch.

"I know of no actual measurements to prove that a similar effect takes place, in inflammation and other maladies, in the larger arteries supplying the parts so affected; but we may reasonably presume its existence from the tangible, and sometimes visible, increase of size in the artery, as well as from the great perceptible enlargement of the veins leading from the diseased parts.

"From various preceding considerations, it is natural, *à priori*, to conclude, that, when under the state not only of the usual healthy dilatation of arteries, but of that increased dilatation which often accompanies disease, the distending cause, which is a certain quantity or momentum of blood, is diminished, the elasticity will tend to contract them, so as, within certain limits, to accommodate them to the quantity of blood which they ought to convey. If, however, the elasticity should be inadequate to the requisite force or degree of contraction, the tonicity, or vital power, may assume the office of contraction where it was left by the elasticity, and carry it to the necessary extent.

"In order to ascertain how far this accommodation of arteries to the loss of blood from the system would reach, I suggested the Experiment 24; in which, the circumference of the right carotid in a ewe having been first raised, by a ligature on the left, from $\frac{233}{400}$ of an inch, to $\frac{238}{400}$, was successively diminished to $\frac{238}{400}$, $\frac{250}{400}$, $\frac{238}{400}$, $\frac{235}{400}$, $\frac{232}{400}$, $\frac{201}{400}$, $\frac{191}{400}$, and $\frac{161}{400}$ of an inch, by as many blood-lettings of eight ounces each, from the left jugular vein, till the death of the animal.

"So also in Experiment 27, the right carotid of another ewe, which was $\frac{233}{400}$ of an inch in circumference, was successively reduced to $\frac{196}{400}$, $\frac{178}{400}$, $\frac{170}{400}$, $\frac{145}{400}$ and $\frac{127}{400}$ of an inch, by similar bleedings from the same vein.

"Hence we may understand, how readily the arteries may become more or less capacious, in proportion to the quantities of blood

which may either exist in the whole system, or may be determined to particular parts."

Dr. Parry thinks it probable, however, that the relative capacities of entire arteries, or certain parts of them, may be affected by other agents than the blood contained in them; as, for instance, from the mere exposure of arteries, some examples of which are given. From these and other experiments, it appears that the fibres of the middle coats of arteries have no power of elongation, like the radiated fibres of the iris, but merely of contraction, and that in dilatation they are passive. In respect to elasticity, it is obvious, that as arteries are already dilated beyond the degree which that agent, if not counteracted, would have permitted, any increase of dilatation must arise, not from an augmentation, but a diminution of the action of that power; hence we may conclude, that the cause of the common dilatation of the larger arteries, and still more of that which is preternatural, is the mechanical distention of the blood. 78.

The Nature and Cause of the Arterial Pulse.

Physiologists are not yet agreed respecting the cause of the pulse. Haller plainly attributes it to the alternate dilatation and contraction of the artery from the impulse of the wave of blood,* corresponding with the systole and diastole of the left ventricle of the heart. "D'abord je me suis assuré que le sang, poussé par le cœur, dilate les arteres, et forme ce battement, qu'on appelle le pouls."—*Memoires sur le mouvement du Sang.* 33. He acknowledges, however, that frequently in living animals examined by dissection, no pulse, nor any dilatation of the artery can be seen.

Bichat, finding that in denuded arteries there was no dilatation during the systole of the left ventricle, considered the pulse as chiefly owing to a kind of locomotion in the whole artery, wherein it springs against the finger in the abovementioned state of the ventricle.

"To illustrate the term *locomotion*," says Dr. P. "let us suppose a piece of flexible cane, which we may move up and down in the direction of its length—may cause to advance or recede—may bend in various ways, or may even turn on its own axis, while at the same time, its diameter or size is in no respect changed" 92.

* This *wave* of blood along the arteries is perfectly incompatible, as we shall presently show, with the fact that the contraction of the ventricle and sensation of the pulse are strictly *simultaneous* in all parts of the body.—*Rev.*

Dumas maintains, with Galen, that the dilatation and contraction of arteries are inherent in themselves, and independent of the mechanical impulse from the heart.

Richerand, with the greater number of preceding physiologists, attributes the pulse to an increase of diameter in the artery from ventricular impulse of blood behind. Portal is of the same opinion. Sœmmering contends for a similar explanation of the pulse, and the writers of our own country are almost universally agreed that the dilatation and contraction of the arteries depend on the systole and diastole of the left ventricle.

The question is not purely of philosophical curiosity, since it involves a point of consequence in the practice of modern surgery. Were a young surgeon taught to expect that he should be able to distinguish, by dilatation and contraction, an artery which he was required to lay bare, and find this test to be wholly wanting, his embarrassment might be considerable; and were a most experienced operator about to tie a deep-seated artery, and find himself unable to discover that artery by the touch, or having made his ligature, remain ignorant whether it was rightly applied till assured by the event, his anxiety may be readily conceived.

"In the course of our experiments," says Dr. P. "in which a carotid, separated from all its attachments was fully exposed to view, and yet no movement was observable in it, we were sometimes equally surprised to find, that, when the finger was pressed against it, or even when it was removed out of its place by the force of the finger beneath it, or on one side, it was equally void of all pulse to the touch.

"A frequent repetition of the same results led to a discovery of what appears to be the nature of the pulse itself.

"The blood, in every part of the arterial system, from the mitral valves, outwards through the whole frame, to the right auricle, may be considered as a set of continuous columns, possessing little compressibility, and filling the tubes in which they are contained.

"When, by the contraction of the left ventricle, the blood included in it is forcibly expelled into the aorta, all these columns receive the shock of propulsion at the same instant. But the velocity during this systole being greater than during the diastole, the momentum, and consequently the impulse, in every direction, is also greatest in the systole. When, therefore, an artery is compressed with the fingers, in the usual mode of feeling the pulse, the blood, in consequence of the systole rushing into the artery with an increase of momentum, gives a stronger impulse of dilation to the fingers, than from the less momentum which exists during the diastole, and thus produces the phenomenon of pulse.

"Hence, it appears, that the pulse is the effect, not of an expansion of an artery beyond its usual diameter, but of a stronger effort, during the systole of the ventricle, than during its diastole, to restore the usual diameter of the artery, which had been diminished by compression.

"Since, also, the excess of velocity from the systole extends throughout the whole of the space compressed by the fingers, it is evident that the distending effort, producing the sense of pulsation, must also be felt throughout that space.

"Before this explanation could be fully admitted, it was necessary to ascertain the cause of the converse of this state; or the reason why a pulse was sometimes wanting in an artery exposed to view; and insusceptible of any mode of examination by the touch. Reiterated trials demonstrated, that this deficiency was owing to the following circumstances. The coats of the carotids are so firm, that when either impelled against any soft substance, or simply moved out of their place, these arteries readily recede; suffering no reduction of diameter and, therefore, giving no sensation of a pulse But if they are confined by any hard substance placed behind them so as to resist a change of position from the pressure of the finger, or if they are squeezed between the finger and thumb, so as, in either case, to suffer a certain reduction of diameter, then the pulse never fails to exhibit itself.

"These latter experiments, therefore, while they show that the pulse does not exist under the mere contact of the finger with the artery, and, therefore, completely refute the supposed dilatation of an artery by the systole of the ventricle, as an object of touch; by ascertaining the precise circumstances under which a pulse does or does not exist, demonstrate, beyond all reasonable objection, the nature of that phenomenon.

"Hence we see the probable reason, why no pulse is said to have been discovered in these surgical operations, to which I have before alluded. If, however, the principle as to both states, be well established, we have only sufficiently to diminish with the finger the diameter of an artery; and then, if it be of a certain size, and the course of blood through it, from the heart, be uninterrupted, we shall not fail to feel the pulse in that artery."

From these facts, Dr. Parry explains a phenomenon which was a stumbling block in the way of Mr. Hunter and other physiologists; viz. why a *denuded* artery exhibits no pulsation, while the latter is visible when the artery is surrounded with its natural coverings.

In order to discover this cause, says he, lay bare an artery and no dilatation is perceptible; but place behind it any hard substance that prevents its recession, and then the finger placed opposite to this on the artery, immediately feels a propulsive stroke at each systole of the left ventricle. In short, the whole

which is necessary is, that the artery should have its diameter in a certain degree reduced; and then the substance reducing it, if not too ponderous, will be driven off in leaps, always according with the systoles of the heart, and often perceptible to the eye.

"In this way the pulsation of arteries may be frequently seen, when they are usually compressed by muscles, or other intervening substances. Hence fæces in the colon; or other indurations in the abdomen, near, or in close contact with the aorta, by compressing that vessel, often both to the eye and touch, simulate aneurisms; and hence, aneurisms themselves, forming for the blood channels which are preternaturally compressed in various directions, suffer jerks from the impulse of the ventricle, which often shake all the neighbouring parts.

"It is not then the mere intervention between the eye or finger and an artery of any substances, whether hard or soft, that, conformably to the opinion of Mr. Hunter, make its pulsations more sensible; but it is because the substances thus intervening often interrupt the current of blood through the artery, and therefore receive a shock which may be tangible or visible, from each systole of the ventricle." 118.

In a former number of this Journal we expressed our conviction that the heart possessed the power of *expanding* its cavities, as well as of *contracting* them; and, consequently, that a suction influence was exerted on the venous system. It appears that Dr. Parry is of a similar opinion.

"Those," says he, "who maintain that the pulse is owing to the alternate dilatation and contraction of arteries, from the systole and diastole of the left ventricle, have probably deduced their conclusion from the analogy of the action of the heart itself. In this organ, they presume that each cavity is dilated in consequence of the distending power of the blood impelled into it, and then contracts itself in consequence of that distension. To me, however, it appears that this theory, however specious, is absolutely erroneous. The different compartments of the heart are so far from expanding, in consequence of the blood which is driven into them, that, *when altogether empty of blood, and even separated from the animal, they expand in a greater degree than when in their natural situation during life and healthy circulation.* Hence, Mr. Hunter himself, notwithstanding the view which he gives of the action of the heart, acknowledges that this organ, after death, has a larger volume than while the animal is living." 122.

Now if the chambers of the heart are capable of dilating themselves, they must as inevitably *suck* the blood from the venous system, as the expansion of a pair of single bellows draws in air through the pipe. There does not, therefore,

appear any necessity for the *resiliency* of the lungs, either in the fœtal or subsequent state, though in the latter it is not impossible that it may have some operative effect.

In Dr. Parry's remarks on anomalies of the pulse, some curious instances are related, showing the accuracy of attention which our author must have long been in the habit of bestowing on every form and phenomenon of disease.

"Twenty instances," says Dr. P. "have occurred to me of the total loss of pulse in the radial arteries, from various maladies of the *alimentary canal*, whether a considerable time before death, or under circumstances that admitted of recovery; while at the same time the pulse in the carotids was full and strong. In one instance of general dropsy, the patient had no pulse in either wrist for seventeen days; yet was restored to perfect health. Sometimes, before death, the pulse has been wanting in one radial only.

"I have seen a total loss of pulse in one arm, with coldness, but complete power of motion in that part; while the other arm was warm, and possessed a perfectly good pulse, but had lost all power of voluntary motion. These symptoms commenced suddenly, two or three days after parturition. The patient soon died, but a dissection was not obtained.

"In another case, a young man, labouring under pulmonary hectic, was found to have lost the pulse in one wrist, immediately after coming out of a warm bath. Several months afterward, it had returned, though in an almost imperceptible degree.

"Another patient, a female of middle age, the mother of several children, affected with severe cough, was, apparently, in a state of convalescence, and walking about her house; when it was discovered that the pulse in one arm was wholly wanting. A few days afterward she died suddenly. The whole course of the aorta was carefully examined; but no deviation from the healthy state could be perceived in it." 140.

Who would suppose that, after all Dr. Parry has written respecting the elasticity, tonicity, and ever varying diameters of arteries in the living system, he, and those who entertained similar opinions, should be represented as invariably considering arteries to be "*inert tubes*," like those of glass or lead in the body, and no way concerned in the circulation, except as conduits from the heart to the veins! Yet such has been the cry of most of those who have alluded to Dr. Parry's writings.

We shall now proceed to a short exposition of what we believe to be as nearly the true state of the circulation, in health, as observation and experiment have yet enabled us to ascertain. In this exposition we shall differ, in some particulars, from most, if not all our predecessors; but we hope

to reconcile many discrepancies of opinion, and to show that several doctrines which have apparently been based on unequivocal experiments, are, in reality, but mere illusions.

We shall commence with the left ventricle of the heart in a state of distension, leaving the cause of that distension, for the present, out of consideration. The blood is projected by the ventricle into the aorta, already in a state of distension itself. The blood being an incompressible fluid, or nearly so, we admit, with Dr. Parry and others, that every column, in the arterial system, feels the shock or force of the blood's momentum, at the same instant. This we would be led to expect from reasoning and from the laws of hydraulics; but it is proved by the sight and touch—by the sight in vivisections, and by the finger in the living body, for the systole of the ventricle and the pulsations of the arteries, are precisely simultaneous in every part of the system, and wherever we apply our finger—whether that be on the carotid, the radial, or the posterior tibial. Now this could not possibly be the case, if only that portion of the arterial system nearest the heart—say the aorta, carotids, and subclavians, felt the increase of quantity occasioned by the discharge from the ventricle. The fact evidently is, that the whole arterial system feels the shock, and *equally* experiences the augmentation of blood, at the moment of its ejection from the ventricle. Now what is the quantity received at each stroke of the heart? About twelve fluid drachms—the ejection or systole occupying about one third of a second, and the diastole two thirds, or double that time, allowing the pulse to be at 60 in the minute. Supposing, then, that *no blood* was discharged from the arterial system during the reception of these twelve drachms, (which, however, is evidently not the case,) we would be glad to ask those physiologists who argue for alternate dilatation and contraction of the arteries corresponding with the pulse, what perceptible or tangible increase of diameter in the vessels of the *whole arterial system* can be expected from such a quantity? We would urge this question still more forcibly, when we assert, as they will admit, that during this reception of the ventricular blood, the flow from the arterial to the venous system is, at least equal to what it was during the diastole of the heart; consequently, the whole arterial system does not contain, during the systole, an overplus of twelve drachms, but only of about eight drachms of blood. Thus, while we freely admit, that the arterial system does actually contain an augmented quantity of blood during each systole, and, consequently, that there is an augmented diameter of the vessels, we deny that this increase of quantity or diameter can possibly be perceptible by the eye, or appreciable by the mi-

nutest or most accurate admeasurements. We now see the reason why neither Parry, nor Haller, nor Bichat, nor Hunter himself, could discover any dilatation or contraction in a denuded artery—for, in truth, these dilatations and contractions, to be made sensible to the eye, would require not twelve drachms, but some pounds of blood, to be injected into so extensive a series of tubes, as that composing the arterial system of a large animal.

Although we think that enough has been said to convince our readers, that no *perceptible* increase of diameter obtains in arteries during the systole of the ventricle, yet, we shall glance slightly at the statements of a few of the most eminent men who have contended for the said dilatations and contractions as the cause of the pulse. Spalanzani, Haller, and Senac, are the champions particularly quoted by the party who support the present doctrine of the schools.*

Let it be borne in mind that Spalanzani's experiments are chiefly microscopical, (the most fallacious of all experiments) and made on cold-blooded animals, as salamanders, lizards, frogs, &c. In these, and some other animals of similar conformation, the aortæ are often a kind of appendage to the heart, and will dilate and contract for days after they are removed from the body—a circumstance which is never seen in the arteries of warm-blooded animals. It is on these very varieties of structure in the two classes of animals that Haller has founded his well-known argument against the influence of the arterial system in the circulation of man and warm-blooded animals. And, after all, Spalanzani does not draw the unqualified inference respecting the pulse, as dependent on dilatation and contraction of the artery, with which he has been charged. He believed that the heart was the sole agent in the circulation, and that its impulse extended even to the veins—that the motion of the blood could take place without any dilatation or pulsation—and, finally, that the successive motion of pulsation, though he thinks it does take place, cannot be perceived by the eye.

Haller had great doubts as to alternate dilatation and contraction of arteries being the cause of the pulse. He never could discover, and did not admit, these alternate states in cold-blooded animals—he never could, by chemical or mechanical stimuli, produce contraction in the aorta of any ani-

* We shall here be obliged to recapitulate a few passages printed in our first, or *Quarterly Series*, vol. II. p. 205, *et seq.* in order not to leave the train of arguments defective. This repetition, however, is of less consequence, as the former series is not now in the hands of one half of our present readers.

mal, or, without difficulty, in the other arteries of warm-blooded animals—in most cases, he could perceive no contraction—in all, so trifling an appearance of this kind, as to render it almost a questionable condition—he maintained the sufficiency of the heart to carry on the circulation—believed that the arterial dilatation and contraction impeded the progress of the blood—considered elongation of the vessel as one cause of the pulse—and admitted the existence of pulsation, where no alternate movement in the artery had taken place.* In respect to the *muscular* contractility of arteries, so far was Haller from drawing the unqualified conclusions of some moderns, that, in his last publication, in 1777, he speaks of this power in arteries as—"debilem, quam neque sponte agentem unquam viderim, neque irritatio mechanica suscitet."

It is Senac, however, who has laboured most to prove the alternate dilatation and contraction of arteries in correspondence with the pulse. Yet, he is able to offer no proof but the supposed necessity of the case; and, indeed, he admits that the circumference of arteries does not extend so much as their axis; while, with regard to any positive evidence as to the states of alternate dilatation and contraction, he confesses that no such circumstance takes place in the vessels of cold-blooded animals, which may be compared, in his opinion, to tubes of glass. He acknowledges, further, that the dilatations in the *successive portions* of the arterial tube cannot be seen even in man. "Les yeux ne peuvent pas saisir cette suite successive de la dilatation dans les arteres." We are astonished, indeed, how the clear mind of Senac should be so warped by a favourite hypothesis, as to imagine that there could be a *successive* dilatation through the arterial system, when his own hands might have ascertained, that the pulsations are perfectly *synchronous* from the root of the aorta to the minutest plantar twig. Or could he suppose that a *wave* of blood would flow, or rather *fly*, from the heart to the sole of the foot, like a ray of light, without requiring any appreciable time for this march? Finally, we may remark, that Leeuwenhoek, the prince of microscopical observers, never saw the dilatation and contraction of arteries in the course of

* If we put our hand on any leaden water-pipe where a pump is acting at one end, we shall feel a pulse at each stroke of the piston, precisely resembling that which we feel in touching an artery in the living body. In the intervals between these pulses, the tube, in the same manner as the artery, conveys no particular sensation. It is, in fact, the *rush* of water through the one, and blood through the other, that causes the phenomenon of the pulse—and not any dilatation or contraction in either of the tubes here mentioned.—*Ed.*

his multifarious experiments on the circulation of different animals.

Bichat, the modern Haller, has taken great pains to show that the arteries do *not* exhibit this alternate motion of contraction and dilatation. He repeatedly laid bare the carotid artery, and always found that the whole tube was agitated by a kind of locomotion—"on voit evidemment que tout le tube est agité d'un mouvement de loccomotion commun." And again, he says, "dans les battemens des arteres les vaisseaux sont, pour ainsi dire, passifs." He asserts, that dilatation and contraction in the arteries (corresponding with the pulse) must be next to nothing, since it is inappreciable by the sight. "La dilatation arterielle, et par consequent la contraction, sont presque nulles, ainsi ne peut-on point les appercevoir."

We shall only allude to one or two other authorities on the present subject.

It is well known that John Hunter was very undecided in respect to arterial dilatation and the nature of the pulse. He asserts that the best evidence, actual observation, cannot be trusted, as to any alternate movement in the arteries, and believes that the diastole of the arteries consists much more in an elongation of their tube, than in its dilatation; and, therefore, that the term diastole would be more properly used to express the elongated state.

Mr. Charles Bell, in his system of dissections, conceives that the pulsation in the arteries is occasioned by the *whole quantity* of blood sent through them in the direction of their axis, lengthening them in opposition to their elasticity, and causing them to form contortions or curves. "It is not (says he) the degree of *dilatation* which we feel in the pulse, but the shock given to the column of blood by the action of the ventricle."

The accurate and philosophical Dr. Young, after examining the various powers concerned in the circulation, concludes that the pulse, as perceptible to the touch, must obviously depend entirely on the action of the heart, since the state of the arteries can produce little, if any, effect on it.

We have gone farther into the subject of *perceptible* dilatation and contraction of arteries in correspondence with the pulse, in order to show the rising generation of students how complacently doctrines are delivered as gospel in the schools, when there really is not any proper proof in their support, and when proofs innumerable may be brought against them, furnished, even, by the party who maintain the doctrines in question.

The fact of non-dilatation of the *trunks* of arteries, *in any perceptible degree*, at each systole of the ventricles, inevitably

brings with it this consequence, that the flow of blood cannot go on in those trunks, *in any perceptible degree*, during the diastole of the ventricle. We would ask those who are shocked at the idea of the blood being alternately quiescent and in motion in the *trunks* of arteries, how it is possible for the current to proceed, say in the aorta, while the ventricle is dilating, while the semi-lunar valves are shut, (for if they are not placed there for the purpose of shutting during one state, and opening during the other state of the ventricle, they must be useless,) when there is no blood pouring into the aorta, and when the aorta itself is not perceptibly contracting? We unhesitatingly assert, that if the blood continues to move on during the above state of things, then it must leave an absolute and complete vacuum at the root of the aorta, which has never been found any where else on the globe we inhabit. The supporters of perpetual motion cannot deny this inference; but they offer in opposition what they call matters of fact. Look, say they, with your microscope, at the capillaries of an animal, and you will see nothing but a current of blood, like a rapid river pursuing a uniform course. Or, say they again, cut the *trunk* of an artery, and the flow will be *perpetual* though not uniform. In respect to *capillary* circulation, we readily grant, that the motion of the blood is constant there, though by no means so rapid as it is represented. We grant, that whatever quantity of blood is accumulated in the arterial system during ventricular contraction, (say two thirds of the whole, or eight drachms,) must pass through the capillaries during ventricular dilatation, and, thus, a constant stream is kept up. But this quantity is not sufficient to produce any evident dilatation of the trunks of arteries, and, consequently, the flow through *them* must be as evident as the augmentation of size. And who, we ask, has seen the motion of the blood in the trunks of arteries? Have the eyes of experimenters, even with their microscopes, been able to see through three coats of an artery? We rather think not.* The only approach to such a thing is to be found in Bichat, and let us hear what he says. "We may derive," says he, "a very exact idea of the circulation by examining the *mesenteric arteries* of a living animal through the peritoneum. At *each pulsation* they appear to be *raised at once from their origin to their extremities*. The motion is *not*

* "In the larger arteries (says Dr. Thomson) of the mesentery, or of the web in the foot of a frog, *the globules of blood are never to be seen in ordinary and healthy circulation.*" "Our being able to distinguish the globules, *even in the capillary vessels*, is at all times the consequence of *diminished circulation.*" P. 81.

progressive; and the blood does not *flow*, properly speaking, but is *pushed suddenly* by a gentle *shock*."—*Anatomie Generale* The reader will find the passage thus translated in Rees's Cyclopedia, article "Heart," and, we believe, by Mr. Lawrence. We leave the advocates of perpetual and uniform motion to reconcile this statement of the most able experimenter of the age with their doctrines; while we appeal to the unprejudiced reader, whether this be not as direct and unequivocal a proof of the doctrine we maintain, respecting the alternate quiescence and flow of blood in the *trunks* of arteries, as any vivisection can possibly afford. The illustrious physiologist just quoted, goes on to say that, "as the arteries are always full of blood, the impulse produced by the left ventricle, is felt *at once* through the *whole system* to its very extremities." "If a tube, (says he,) dividing into a series of branches, which were again divided for any number of successive times, and completely filled with fluid, were connected to a syringe, the depression of the piston would cause an efflux from all the open branches *at that very instant*." He considers, in fact, and very justly too, that ventricular contraction, general movement of the whole mass of arterial blood, and passage of this blood into the capillary system, are three circumstances that occur *at the same moment*. "Hence," says he, "each ventricular ejection of blood remains some time in the arteries before it reaches the capillary system." These statements of an accurate anatomist who had no hypothesis in view, harmonize rather curiously with the doctrine of rapid and uniform motion of the blood.

Again, if we denude an artery, and press it between the finger and thumb, we feel the pulse or rush of blood through it very distinctly at each systole of the heart; but, during the diastole of the same organ, the parietes of the artery, even although we bring them in actual contact, feel just like so much of a dead tube, without communicating one particle of a sensation similar to that which they, the moment before, communicated. Now, if the motion of the blood through the artery, be only *accelerated* during the systole of the ventricle, and still more if it be a uniform rapid river, as the microscopic philosophers represent it, how comes it to pass, that, during the diastole of the ventricle, it exhibits *no degree* of the same phenomena manifested during the systole? As far, then, as *tangible* evidence goes, in respect to the blood's motion in the trunks of arteries, (and we deny that the experimenters have any other *ocular* evidence besides what Bichat has also had,) it is completely in favour of alternate motion and quiescence. When we say *quiescence*, be it always understood, that we mean such a degree of quiescence as renders

the little progressive motion it may have, imperceptible to the eye, or inappreciable by other means hitherto devised.

The argument founded on the flow of blood from a wounded artery is almost too futile to need refutation, were it not still brought forward by some late writers of note. We have before* pointed out how very erroneous a notion we form of the healthy circulation by the flow of blood from a wounded artery. When a large vessel is cut, the whole blood of the body rushes to that point—qua data porta—and consequently more blood passes along the cut artery in a minute than would naturally pass in half an hour. A pipe bursts in our streets, and the water boils out with great force and velocity, even if the fluid be perfectly quiescent the moment before. The pressure of the reservoir at a distance has precisely the same effect, in such a case, on the motion of the water, as the action of the heart and the contractile power of the arteries have on the blood, when a wound is made in the vessel. In both instances the velocity of the fluids through the artificial outlets, as compared with the previous motion in the tubes, is great beyond comparison. Bichat, indeed, has very justly remarked that—"the progress of physiology concerning the circulation has been much obstructed by the current notions concerning the *velocity* of the blood's motion in the arteries, of which we can form no true estimate, because the motion is not progressive, and cannot be subjected to calculation."

And this leads us to notice a source of fallacy in microscopic observations on the circulation of the blood, which we are surprised has not struck the experimenters themselves; —it is the circumstance of the field of vision being magnified by the glasses used. Is it not obvious, that if a piece of the membrane of a frog's foot, say one-eighth of an inch in breadth, be magnified by glasses to the appearance of four inches, the velocity of a globule of blood passing across this space is also magnified to 32 times its real rate? Let any one, for example, take a telescope and look through it at a boat on the Thames, while he stands on the bank. It will appear to fly through the water. Let him reverse the telescope—it will appear almost a fixture; though the boat is moving all the while at an equal rate of progression. Here then is an explanation of the "*rapid rivers*" which the microscopic philosophers have discovered in the circulation—too forcibly reminding us of the gigantic animal which was seen to stride across the moon, a thousand miles at a step, when an insect had got between the glasses! If to this tre-

* Vol. II. *Quarterly* Series, October, 1819, p. 211.

mendous source of fallacy in the microscope, we add the panic, the pain, the convulsions, and the contortions of an animal on the rack of experiment, we shall have some clue to the contradictory statements of physiologists—scarcely any two of whom agree on any one circumstance regarding the circulation! Some of them see nothing but "rapid rivers—others observe currents and counter-currents "hurrying to and fro"—some see the ventricular impulse distinctly, not only in the branches and capillaries of the arteries, but even in the *veins*—nay, Dr. Thomson saw the alternate impulse more distinctly in the *veins* than in the arteries!! "They can be traced," says he, "into the veins; and, indeed, in most of my experiments, *these accelerations* from the pulse of the heart were more visible in the veins than in their corresponding arteries." What are we to conclude from this chaos of microscopic contradictions, or, as Dr. Charles Parry has aptly designated them—"*opposite* matters of fact?" Why, that they are all illusions—the more dangerous because they wear the garb of realities. It is far safer to argue from no data at all, than from false data.

But can we glean no help from common observation of the phenomena presented during health or disease, without the aid of lenses? Nature has very often converted the arteries of the living body into the ridiculed "inert tubes," about which so much has been said, and where, consequently, there could be no dilatation and contraction at all, corresponding with the action of the heart. What was the effect of this dreadful state? Why, that some of them lived to the age of 180 years. Old Bayles, recorded in the Philosophical Transactions, attained this age, almost the whole of his arteries being bony or cartilaginous. Now, we would ask whether it is likely that there was a constant stream through these inert tubes, whether the ventricle was delivering blood into them or swelling out and filling itself? If the blood was not alternately quiescent and flowing in these vessels, then there is a law for them which exists nowhere else in heaven or on earth, that we know of. "Oh!" but says the experimenter, "in these states of ossified arteries there are faintings, palpitations, and other phenomena resulting from the unnatural condition of the vessels." Are there indeed? No mention is made of faintings in the case of Old Bayles. He had intermissions of the pulse it is true; but will any physiologist of the present day attribute that phenomenon to an ossified artery? Is it not clearly attributable to disease of the heart, or rather of the *valves*? "Ossea," says Haller, "arteriarum natura *frequens* omnino senum vitium est. Et tamen senes iique homines in quibus arteriæ a morte ossese visæ sunt, diu

cum ejusmodi rigidis et ab omni contractione alienis arteriis vixerunt. Neque enim hoc vitium subito opprimit." Morgagni (Let. xxiii.) found the aorta and iliacs converted into bone. The woman had palpitation; but Morgagni by no means attributes it to the ossification, for he says, " at the same time, it is necessary to declare why, *out of so great a number* of persons in whom there was an aorta *of this kind*, many of them certainly did *not* labour under these disorders at all." Fallopius asserts " that he had seen *all the arteries* in the left half of an old woman degenerated into BONE." Instances, indeed, of this kind are innumerable, and they are calculated to carry a strong degree of conviction to the unprejudiced mind. They prove that the heart alone is capable of carrying on the circulation as far as the capillaries; and what may take place *there* is nearly to us unknown. We cannot help thinking, however, that the important functions of secretion, nutrition, absorption, &c. are enough for the capillaries, without giving them the additional drudgery of *impelling* the blood, for which there is the strongest muscle in the body especially appointed, aided, we allow, by the tonic and elastic power of the arteries.

Our ideas of the circulation are finally these. The *ventricular contraction* throws a small quantity, say an ounce and a half, of blood into the aorta, which gives an impulse to every column of blood in the whole body, and augments the whole *arterial* system *equally*, and consequently in a degree totally inappreciable by the eye or any other means. During the *diastole* of the ventricle, the tonic and elastic powers of the arteries cause a discharge from the whole arterial system of the overplus accumulated during the systole; which discharge is also so small as to produce no *evident* diminution of the arterial calibres, and consequently no *appreciable* current along their trunks, though there must, of course, be a flow (somewhat diminished we think)through their capillary terminations. This process may be rudely illustrated by the action of a pair of double or smith's bellows. The action of the *lower bellow* augments the blast through the pipe, and throws some air through the valve into the upper bellow, which serves as a reservoir. When the lower bellow is dilating and filling, the upper bellow continues a diminished stream of air through the pipe, expending the overplus it had received during the action of the great bellow below—and so on. Now if the upper bellow, which may represent the arterial system, was so large that the portion of air forced into it did not *ostensibly* increase its dimensions, the parallel would be nearly complete—for then the air in the upper bellow would have so

little motion as to be also imperceptible, though the current would be constant (but unequal) through the pipe.

It appears to us (and we believe that little more than conjecture can yet be offered on the occasion)that the *vis a tergo* is perfectly equal to the passage of the blood through the capillary system. We see this passage forced or effected by the arteries alone after death,* and consequently after the heart's action has ceased. And we see no reason why the heart and arteries together should not be able, during life, to accomplish what the arteries unaided perform immediately after life has ceased. Considering too that the blood is an incompressible fluid, we see no just cause why the same *vis a tergo* should not propel it along the channels of the veins. These channels being much more capacious than the arteries, may cause the flow of blood to be more placid and uniform in the veins than in the arteries—though we have no unequivocal proof of the velocity or uniformity of the venous current, microscopic observations being discordant, and the coats of the venous trunks offering insuperable bars to ocular evidence. Every man must have seen the blood flow *per saltum*, from a vein in the arm, and it is quite absurd to attribute this phenomenon to the beating of the subjacent arteries, when we now know that they have no perceptible dilatation or contraction. We must be convinced that the blood is received *periodically* from the *head* of the venous column by the heart, and it is extremely difficult to conceive how this periodicity should fail to effect the motion of an incompressible fluid in the great trunks leading to the central organ. Indeed all experimenters have observed a reflux of blood, and bulging out of the head of the cava, on each contraction of the heart. Independently of the *vis a tergo*, however, there can be little or no doubt that the heart has a capability of actively dilating as well as con-

* Dr. Philip, for instance, having passed a ligature round the great cardiac vessels of a frog, and then cut out the heart, found that the *circulation* continued in the capillaries for some time, and then gradually ceased. This indeed is an old experiment, and has been perspicuously explained both by Hunter and Parry. The latter gentleman has clearly shown that the larger arteries continuing to contract by their tonic and elastic properties, after the heart has ceased to supply them with blood, they necessarily propel all, or nearly all, the blood they contain, through the capillaries into the veins. When their tonic or fibrous power dies, the elastic power endeavours to bring back their diameter to a certain width, but not being *able* to suck the blood from the veins, we find the arteries *flattened* in the dead body, and empty of course. In ossified arteries, on the contrary, we find the blood still in them after death. How can it, in fact, leave them, without leaving, as we before remarked, a vacuum in the aorta? for in this ossified state they cannot contract upon it.

tracting. This is proved by hearts recently cut out of animals. If they be put into warm water, they will continue to dilate and contract for some time, thus sucking in and squirting out the water from their cavities. And thus it is, that if a ligature is put round the arm of a man whose veins are very prominent, we see those below the ligature swell, and those above it shrink—evincing the *vis a tergo* below the obstruction, and the suction of the heart above it. When we contemplate the structure of the auricle and ventricle, it appears quite impossible that the contraction of the former can be destined for the dilatation of the latter. The active dilatation of the ventricle, by rapidly sucking the blood from the auricle, will cause it to fall in, of course, and appear to be contracting and filling the ventricle; but it really seems to be little more than a reservoir for the master-agent, the ventricle. When the ventricle contracts, it stops, of course, the rush of blood through the auricle and cava, and then the fluid accumulates in the auricle or reservoir for the next expansion of the ventricle.

We believe the above exposition to be nearly the real state of the case; but it must be confessed that it is exceedingly difficult, if not impossible, to ascertain by unequivocal experiments, the functions of the complicated machinery employed in the circulation of the blood. We must therefore trust partly to reasoning and reflection, and partly to observation.

We see then that the heart is placed between the venous and arterial systems, and appears to be the great agent that regulates the equilibrium of the blood throughout both. If it act too forcibly, it distends the arterial system beyond the medium, and these vessels, by the reaction of their elastic and tonic powers, must distend the capillaries also, and accelerate the circulation through them. If, on the other hand, the action of the heart be below par, and does not keep the arterial system at the due pitch of distension, it is evident the arteries must, by their own powers, go on lessening their diameters, while the balance of blood is thus thrown on the venous system, which is not emptied in due time and degree by the heart. The former state must be that of arterial distension—the latter that of venous congestion. Great vacillations, however, of this kind, may take place in a sound constitution, and perfectly consistent with health. The common muscular motions which we are hourly calling into action in the avocations of life, are hourly disturbing this harmonious balance of the circulation, without inconvenience. Muscular motion certainly accelerates the *venous* circulation, as is evident from the familiar example of grasping a stick when the blood is flowing from a vein; but by hurrying the

blood to the heart, it appears to excite the central organ also to quicker action, and then, of course, the whole circle of the circulation is accelerated. The causes indeed which disturb the balance of the circulation are very numerous. Every atmospherical change of temperature increases the quantity of blood in one set of vessels, and lessens it in another. The cold and warm baths offer striking examples which every one can appreciate. Even the passions have the power of perturbing the circulation as well as the temper. The effects of violent emotions, as rage or terror, are familiar to all observers; but, in truth, there is not a single emotion of the mind, whether of joy or sadness, admiration or aversion, hope or fear, love or hate, solitude or confidence, that does not, through the instrumentality of the nerves, disturb the even balance of the circulation. And wisely has the Divine Architect provided against these constant occurrences in life. Every vessel and set of vessels throughout the whole machine are endued with a surprising power of dilatation and contraction, (whether active or passive,) or in other words, of accommodation to the ever-varying magnitude of the stream passing along their channels. These are most important properties—not only warding off innumerable evils, but correcting them when they actually occur. It is principally for these wise purposes, we imagine, that the vessels were endued with the properties in question; though physiologists have too exclusively viewed them as powers mainly instrumental in the common course of the circulation. This common course, we verily believe, is *chiefly* carried on by the heart, a powerful organ most admirably fitted for its office. At the same time, we have admitted the auxiliary assistance of the arteries in the manner so fully descanted on.

As we have confined this article entirely to the *physiology* of the circulation, we have taken very little notice of Dr. Lucas's observations on the subject. They very nearly coincide with our own, excepting as to the degree of quiescence in the trunks of arteries during ventricular relaxation. On this point we expect few converts from a doctrine taken in with the first rudiments of anatomical education, and firmly rooted in the mind. We leave our observations for the consideration of those who are commencing their studies, and who may perchance examine for themselves as they proceed. The main part of Dr. Lucas's work—the pathology of the vascular system, will come under review in our next number. In the mean time we may take leave to say that his work is characterized by much clearness of perception, and contains as luminous an explication of the intricate subjects discussed as we can yet expect from the imperfect data on which our doctrines are founded.

IV.

Elements of Therapeutics and Materia Medica. To which are prefixed two Discourses on the History and Improvement of the Materia Medica, originally delivered as Introductory Lectures. By N. Chapman, M. D. Professor of the Institutes and Practice of Physic, and Clinical Lecturer in the University of Pennsylvania: President of the Academy of Medicine of Philadelphia, &c. Two volumes, 8vo. second edition. Philadelphia, 1821.

The Practice of Medicine may be said to consist of two separate trains of investigation and study—*first*, to ascertain the nature, seats, and causes of diseases, including anatomy, physiology, and pathology—*secondly*, to discover and apply the means of obviating or curing diseases when they occur, including chymistry, materia medica, and clinical experiments and observations. Although it might appear, at first sight, that in the latter class of studies (being merely the observation of facts and occurrences) there could be little cause of discrepancies of opinion, yet, with the exception of chymistry, we have in the said class, a most ample field for theory, hypothesis, contradictory doctrines, and clashing facts. The modus operandi of medicines, for instance, and the share they take in the removal of diseases, have afforded bones of contention innumerable, in the medical world, down to the present moment. It is now, indeed, pretty generally acknowledged that we can rarely, if ever, predict the operation of a medicine, from an examination of its sensible qualities—many being very powerful in their effects on the human frame which are apparently inert or insipid—while others, of very striking sensible qualities, may be taken in large doses, without any adequate consequences. But while the operation of medicinal substances is thus reduced to a mere matter of observation upon trial, their *modus agendi* presents a very wide field for speculation—a field in which the author of the work before us has ranged very freely, and not always idly or uselessly. Our American brethren pride themselves, in some measure, on their emancipation not only from the political but the medical dogmas of their European progenitors; and in such a science as ours, it is not difficult to suppose that such liberty sometimes becomes a little licentious. We are not disposed, however, to find fault with our transatlantic brethren on this account, as we are no advocates for tame submission to the yoke of any other authority than truth and experience.

Professor Chapman is a man who evidently thinks for himself, and who is capable of thinking well, on many occasions. We do not consider him entirely devoid of prejudices, nor unapt to form what we might term *ardent* opinions occasionally—a leaning to which we think we can perceive in most of the American authors.*

Having been called unexpectedly, in the year 1813, to the chair of materia medica in the University of Pennsylvania, he had but little time to prepare for his lectures, of which he only delivered three courses before he was translated to another chair. His former pupils pressed him to print his lectures, and the work before us is the result of this request. The first edition appeared in 1817, and the present has undergone a careful revision, and we may suppose considerable improvements. We shall now endeavour to give some account of the work to our cisatlantic brethren.

The first *discourse* is on the *history* of the materia medica, which we pass over as a matter of course; and the second also, with the exception of a passage already quoted in a note.

The first *section* of Dr. Chapman's work is on the *modus operandi* of medicines, and here we have "the vigorous sallies of speculative genius," but whether truth is revealed in "a burst of light of celestial brightness," we cold-blooded critics of the old world must not be in too great a hurry to decide. A warm controversy is carried on beyond the Atlantic, between the solidists and the humoralists, our author being at the head of the former party.

It is conceded on all sides that the operation of medicines does not depend on the common laws of matter, but on a

---

* We shall give an extract from Dr. Chapman's second discourse, in the general bearing of which we coincide with our author; but the language will convey some idea of what we meant by *ardent opinions*.

"Experience, by which I understand that species of knowledge which is acquired by frequent investigation of the same object, has been much insisted upon, as the only guide to successful practice in medicine. Were this well founded, it would only be necessary diligently to attend the receptacles of the sick, and any well-trained nurse might be brought to excel the most enlightened and regularly educated physician. Let this principle be once admitted, and our practice becomes a blind routine, without reason or reflection—and the profession, instead of being studied, as heretofore, as a science, will be considered merely as a mechanical art, and exercised only as a low and vulgar trade. Can we consent to this degradation? As well might we compare the mere flutterings of the meanest and most grovelling bird, with the bold and well sustained flight of Jove's own imperial eagle, *as those slow processes of a vulgar intellect by which facts are collected or observed*, with the vigorous sallies of speculative genius, which seize truth, as it were, by intuition, and reveal it in a burst of light of celestial brightness." 54.

principle incident to vitality. "Medicamenta non agunt in cadaver," is a scholastic maxim. But what is vitality? Our author, we think, wisely abstains from entering deeply into this subject. Of the various doctrines respecting the vital principle, only one appears to him to be at all well founded—and this it is which presumes that every animated body, animal or vegetable, is endowed with *a primordial principle of life*, resident in the ova of animals, and the seed of plants, constituting the power by which the various organs are moulded, developed, and perfected, and by which the animal economy is afterward defended against the action of mechanical and chymical laws. In this we perfectly agree with our author;—and in the greater part of the following positions we are also inclined to coincide.

"*Located*, perhaps, in the highest degree, among the digestive and assimilative organs, it enables them to change, or destroy the qualities of the substances exposed to their operation, without sustaining in return the slightest injury or change. It would hence really appear, that instead of matter, whether aliment, drink, or medicine, acting on the living system, as is commonly imagined, it is, on the contrary, the living system which operates on these matters. But such is the case only when the vital energies are in a vigorous and healthy condition. Different, indeed, is the result, where, from debility or other imperfection, the vital organs are rendered unfit to act upon substances, or of resisting the action of substances on the system. Whatever is taken into the stomach under such circumstances, preserves its properties unaltered or undergoes the same sort of alteration, which it would do out of the body, or beyond the sphere of the vital powers. Each article in this state obeys the order of its affinities, and the changes which occur are purely chymical. Common matter now acting by its own laws, the system, being thus languid and decayed, sinks under an attack it cannot repel, and the processes of fermentation and putrefaction ensue, which, if not timely arrested, become the precursors, as well as the causes of death and destruction." 60.

We can hardly accord with our author in all parts of the above quotation. Suppose the material introduced into a healthy stomach be a glass of brandy. We feel first a glow of heat in the stomach, and next a mental excitement or exhilaration of spirits. Does our author suppose that no "*change*" is produced in the nervous or vascular systems of the stomach and brain by the application of the brandy? Is not the vascularity of the internal surface of the stomach somewhat increased, and the nervous structure excited? We do not say that the brandy produces these changes; but that the presence of the brandy causes the living structures to assume these changes themselves. This indeed appears to be

the opinion of Dr. Chapman himself, for he says immediately afterward—" the theory I shall propose of the operation of medicines alleges that they all act *by exciting a local impression*, which is extended through the medium of sympathy." Now we ask Dr. Chapman, what is this *impression*, if it is not some *change*, whether visible or invisible, of the parts so impressed or acted on? He says, in one page, that matters do *not* act on the healthy structure, and in the next page he says, they " excite a local impression." Surely this last expression conveys the idea of some agency in the material, and not a mere passiveness under the agency of the vital, structure. We defy the doctor, or any other man, to reconcile these two passages.

Our author denies that medicines enter the circulation and produce their effects in this way.

"All changes in the condition of the fluids are wrought by impressions made through the intervention of the solids. Not the slightest proof exists, so far as I know, of their undergoing any mutations, either by spontaneous action, or from the introduction of foreign matters, much less that such is the cause of disease, or the mode in which remedies operate." 61.

This, we think, is carrying matters rather too far. We find actual changes in the blood and other fluids during life; and we really see no proof that they *always* take place through the agency of the solids. We do believe, however, that they generally take place through the said agency; but then we imagine that diseases may be the consequence of this change in the fluids, in whatever way the change is produced, whether by the living solids, or by spontaneous mutations in the fluids themselves. In this respect, therefore, we humbly beg leave to differ from Dr. Chapman.

Our author considers it quite incredible that any substance, after a subjection to the digestive and assimilative powers, should retain, in the slightest degree, its original properties. This, he thinks, is proved by the circumstance that the chyle has always an essential identity, however diversified may be the materials from which it is formed—that, in fact, it has probably all the properties of the blood, except its red colour. Three of the constituents of blood at least it contains.

"1. There is one portion of chyle, which preserves its fluidity during life, but coagulates after death, by exposure to the air, and is probably fibrine.

"2. There is a second portion, which resembles serum, in continuing fluid when exposed to the atmosphere, and in coagulating at the same degree of temperature, as serum.

"3. There is a third, consisting of globules, similar to those of

blood, with this difference only, that they are much more minute." 62.

Even when substances are applied to the surface of the body and absorbed, the same mutation or assimilation, Dr. C. maintains, takes place as when they are introduced into the stomach and digested there. This capacity of the lymphatics, as well as the lacteals, is a provision of nature to exclude noxious matter from the circulation. The obvious objection, that the properties of certain substances are displayed in the secretions, is thus attempted to be overcome.

"To me it is clear, that the process of assimilation, as performed either by the chylopoietic viscera, or by any part of the absorbent apparatus, completely decomposes all substances; and, however discrepant in their properties, reduces them to a homogeneous fluid fitted for the purpose of nutrition. But, when thrown into the secretions or excretions, being removed beyond the control of the vital energies, chymical affinities are sometimes again brought into play, by which these substances are in part, or *wholly regenerated.*"

This work of *regeneration* appears to us a very lame petitio principii. Our author endeavours to strengthen it by pointing out to us that—

"Certain articles can only be detected in certain fluids, as the odour of garlic in milk, of asparagus in urine, of sulphur in the perspiration; and the colouring principle of madder is to be traced in no part of the solids, except the bones, and their immediate appendages, the cartilages. Did these articles pre-exist in the blood instead of being regenerated in some such manner as I have stated, ought they not to be thrown out indiscriminately by all the emunctories?"

To us the reason appears to be simply this—that some substances have a tendency to run to and affect one organ or emunctory, and others another. Our author objects to this explanation, because we cannot tell "why our remedies, after mixing with the blood, should be directed to one organ in preference to another." But the same objection surely lies against the doctrine of sympathy—why should a medicine *sympathetically* affect one organ in preference to another? we are not now arguing against the doctrine of sympathy, but showing that its advocates have urged unreasonable objections against the humoralists. That medicines, in very many instances, act through the medium of the nerves rather than of the blood-vessels, we believe is now almost universally admitted. The action of wine, opium, digitalis, prussic acid, &c. offers ample illustration. But that some other substances enter the blood (modified no doubt) can hardly be denied after finding madder and mercury in the bones; and

soda in excess in the blood of a person who had taken much of this medicine. Dr. Marcet has also shown an immense quantity of iron in the bile of the knife-eater, as recorded in the Medico-Chirurgical Transactions.

Discarding the fluids then, in his inquiries relative to the operation of medicines, our author has recourse to that law of the animal economy termed sympathy, or consent of parts, for a solution of the problem.

"Conformably to the theory I have adopted, whenever a medicinal substance is applied to a susceptible portion of the body externally or internally, an action is excited, which is extended more or less, according to the diffusibility of the properties of the substance, or the degree of sympathetic connexion, which the part may maintain with the body generally. Thus a set of actions is raised, every one of which is precisely similar, provided they are confined to the same system, by which is to be understood parts of an identity of structure. If, however, the chain runs into other systems, it loses its homogeneous character, the actions being modified by the peculiar organization of the parts in which they may take place. These are principles of universal application. In every case, whether it respects the operation of remedies, or the production of disease, the spot primarily acted upon, is a point, from which is diffused the radiated impressions. This is a mode of action peculiar to living matter, and is remarkably distinguished from all other processes. An impression is made and extended without mixture or combination, or in any degree disturbing the order and constitution of the part in which it takes place. But in chymical operations, to which we must look for an explanation, in the event of rejecting the above rationale, decomposition inevitably occurs—and, as the result, new compounds must be formed from a union of the elements of the part, with the substance applied, wholly subversive of the existing structure. By a course of medicine, and, indeed, by every meal, our nature would become essentially changed. Exceedingly preposterous as it may seem, such is the direct and legitimate corollary, from any other than the sympathetic view of the modus operandi of agents on the animated frame." 71.

By this our author is not to be considered as denying, but as affirming the vitality of the blood. The animal machine he views as constituted of solids and fluids, the whole of the latter, whatever the different colours, (not including the excretions) are considered as blood.

"It is a whole made up of parts, which, though somewhat dissimilar, and existing in different proportions, are no less endowed with the vital influence, and held together, and made to harmonize, by common susceptibilities and sympathies. Connected indissolubly by these ties, an impression made on any one portion of the system, whether solid or fluid, is equally felt by both, on account of this established consent of parts." 72.

Our author observes that there are not wanting men who affect scepticism as to the very existence of what is termed sympathy, because it cannot be demonstrated before their eyes. As well might they doubt the existence of sensibility or irritability, neither of which is capable of demonstration. Of this principle, like many other principles, we know nothing except from the experience of its effects—its precise nature being concealed—causa latet, vis est notissima. Dr. Chapman is of opinion that sympathy cannot be exclusively referred to the nerves, although in many instances it is clearly brought about through their agency.

"But there are many other sympathies, not less conspicuous, between parts, the nerves of which have not the slightest connexion. It appears that, either by the co-operation of different organs in the performance of a function, as in the complex apparatus subservient to respiration, or from similarity of structure, parts, though detached, being prone to be affected by the same cause, as the parotid gland and testes in the male, and the same gland with the mammæ in the female, the habit of acting in unison is acquired, and sometimes confirmed. This habit of concerted action is termed association, and has been adopted as a principle by Locke, by Hartley, and by Darwin, to account for the connexion in many of the motions of the body, as well as in the operations of the mind. Both the sound and morbid states of the system present numerous instances of these associated actions, some of which are constant and uniform, while others are occasional and anomalous, produced, as it were, accidentally." *75—76.*

This principle, our author properly observes, pervades the whole body, every portion of it being susceptible of associative actions, by which means the several parts are linked together so as to constitute one whole. But though this general medium exists, for the reception and propagation of impressions, there are three surfaces on which remedies, and perhaps the causes of disease more particularly operate. These are, the alimentary canal, the skin, the organ of smell. Although each of these parts possesses considerable susceptibility, and maintains extensive connexion with the general system, it is the stomach which evinces infinitely the quickest sensibility to action, and the most intimate and multiplied relations. Without a stomach no animal can exist, this viscus being the most indispensable of the vital organs, and incident to every variety and gradation of animal existence. This organ is probably the centre of associations, and the seat of the first link in the chain of most diseases—" and is always the chief medium of the operation of our remedies in the correction of morbid derangements." It is needless to say that the intestinal canal is a mere continuation of the

stomach, thus giving a most extensive spread to the play of sympathies and associations.

In respect to the surface of the body, much discussion has taken place as to the capacity or incapacity for absorption. At one time it was supposed that the skin really absorbed every thing applied to it; at another the power of absorption was denied almost in toto to this surface. Leguin in France, and Rousseau in America, were among the first and foremost asserters of the latter doctrine. It is now, however, admitted by the heads of the non-absorption party, that the skin is capable of taking up certain substances under certain circumstances. Dr. Massey, having clearly proved that if the body be immersed in a decoction of madder, the colouring matter of this substance will be taken in, and displayed in the urine, by using any one of the alkalies as a test, set Dr. Rousseau and his friends to work in order to prove or disprove this formidable fact. The result of their researches was :—

"1. That of all the substances employed, madder and rhubarb are those only which affect the urine—the latter of the two, the more readily enters the system. Neither of these articles can be traced in any other of the secretions or excretions, or in the serum of the blood.

"2. That the power of absorption is limited to a very small portion of the surface of the body. The only parts, indeed, which seem to possess it, are the spaces between the middle of the thigh and hip, and between the middle of the arm and shoulder.

"Topical bathing, with a decoction of rhubarb or madder, and poultices of these substances applied to the back, or abdomen, or sides, or shoulders, produced no change in the urine: Equally ineffectual was immersion of the feet and hands in a bath of the same materials, which, after being kept in it for several hours, not the slightest proof of absorption was afforded." 81.

Such being the statements of the non-absorbent party, it is evident that cutaneous absorption must be admitted in general terms; for it would be absurd to suppose (whatever experiments indicate to the contrary) that the power of absorption is limited to the skin "between the middle of the thigh and hip, and between the middle of the arm and shoulder." Neither can we doubt the fact of a pulmonary absorption, notwithstanding the attempt of our ingenious author to account for the phenomenon by showing "that, under such circumstances, it is the olfactory nerves which are the seat of the impression, and the medium through which these volatile matters produce their effects." The experiments to which the above passage has allusion are too numerous for us, at present, to notice, but, says our author—

"Collectively, they warrant th[illegible], that, by simply

closing the nostrils, either by compression with the fingers, or by filling them up with putty, the fumes of ardent spirits, of a strong decoction of tobacco, or an infusion of opium, may be inhaled for one hour, without any unpleasant effects; whereas, if the precaution mentioned, be omitted, the consequences are proved to be most distressing.

"New as these results are, and inconsistent with our pre-existent notions as they may be, they are rendered highly probable, independently of the respectability of the source whence they proceed, by some facts of a very striking and indisputable nature. Every practitioner has witnessed, how powerfully all the volatile and odorous matters operate on the olfactory nerves in health and in sickness; and it is hardly less known, that when the sense of smell is impaired by a coryza, or entirely suspended by obstructing the nostrils, that the sensible qualities of most substances are so lost, that they cannot be accurately discriminated; and this extends, even to those articles of our food or drink, with which we are most familiar." 82—3.

The subject of the *modus operandi* of medicines will be again adverted to when particular medicines are under consideration. In respect to the classification of medicines, as of diseases, much difficulty has always been experienced; and all attempts have failed when the arrangement has been made according to the sensible qualities, chymical compositions, or botanical characters of medicinal substances. The most natural and useful arrangement is according to their effects on the living body—yet there are endless perplexities and contrarieties in consequence of the *diversified* powers of many medicines, and the varying susceptibility of the constitution in health and in disease. Our author then examines the materia medica under titles expressive of the actions or operations of medicines on the body, as emetics, cathartics, diaphoretics, &c.

1. *Emetics.* Dr. Chapman does not give a very decided opinion respecting the mooted physiology of of the action of vomiting; but he seems to lean to the opinion of Haighton, in opposition to Majendie, that the stomach is not passive but active in this operation. It is remarkable, he observes, that whereas most other medicines lose their power by repetition, emetics increase the susceptibility of the stomach to their impression the oftener they are used, till at last the very sight of them will excite vomiting. Before entering on the direct application of this class of medicines to diseases, our author suggests the following general precepts to be attended to in their exhibition.

"1. When the vessels of the head are full, or there is much general plethora, the emetic should be preceded by the loss of blood. Two

advantages result from this practice. It renders the vomiting safe, and more easy and effectual. By neglecting this admonition, many a life has been either endangered, or sacrificed, by apoplexy or hæmoptysis.

"2. When the necessity is urgent, and a certain and powerful operation is demanded, give a large dose, and of the most active species. But, in all ordinary cases, minister the medicine in divided quantities, so as to guard against too violent an effect.

"3. Where the object is to make a strong revolutionary impression on the system, little drink should be allowed. But if it be to evacuate the contents of the stomach, large draughts of tepid water, or some other light drink, as warm chamomile tea, will promote this end, and, at the same time, facilitate vomiting.

"5. As a general rule, emetics should be given on an empty stomach, and in the morning, acting then with greater certainty, and less distress. They will, however, answer very well in the evening, and, where an apprehension exists of the patient taking cold, ought to be exhibited to him in bed, at the hour of rest.

"6. To check inordinate vomiting, direct laudanum, combined with some cordial, apply fomentations to the pit of the stomach, and sinapisms to the extremities. Chicken water, copiously drank, is sometimes useful, by turning the action downwards. When these fail, anodyne injections may be resorted to, and a large blister should be put on, over the epigrastic region." 102.

In this section, Dr. Chapman takes occasion to enunciate his creed respecting fever. The distinction between idiopathic and symptomatic fevers is considered absurd. All fevers, he asserts, are caused by either animal or marsh effluvia, or variations of temperature. We are rather surprised, that a man of Dr. Chapman's comprehensive views should limit his etiology of fever within such narrow bounds. There are more than a hundred different causes that may give rise to the phenomena of fever. We shall only allude to two or three in addition to our author's catalogue. Mental emotions, excessive exercise, excessive heat, (independent of variations of temperature) excessive eating or drinking, and numerous other agents and circumstances around us, are all capable, as Dr. Chapman himself afterward admits, of exciting fever.

Dr. C's reason for blotting out idopathic fever from the nosological chart is, that the cause of the disease make its impression on a single point or organ, and thence radiates to the whole system—in short, that the disease has "its origin in local irritation." The seat of this local irritation is, according to our author, the stomach, thus agreeing with Broussais, whose doctrines, Dr. Chapman affirms, he anticipated in his lectures. Now we beg leave to differ from Dr. Chapman on this point. Of the mode in which marsh and animal poison gets into the system we know nothing, although

Dr. C. confidently asserts, that it *must* be by saliva. It is needless to say, that he can offer us nothing in the shape of proof. On the other hand, there are many causes of fever which cannot enter by the mouth, as mental emotions, &c. and where we have more reason to suppose (for it can only be supposition) that the brain and nervous system receive the first impression. We agree with our author then, that the causes of fever make their first impressions locally, the locality being various, as the nervous system, stomach, skin, lungs, &c. but then, we maintain, that it is not *fever* till the other parts are drawn into disorder, which other parts often become more severely affected than the point or organ on which the original impression was made. What nonsense is it then, to call fever, when it is playing on all the organs and systems of the body, a local disease, merely because its cause was applied to a part of the body first! We might as well call variola a local disease because the virus was inserted in the arm.

Our author's theory (gastric) naturally leads him to speak of the utility of emetics in this class of diseases; and we join him in thinking we have too readily relinquished their employment in favour of purgatives. But, as he truly says, there is a fashion in medicine, as in all other things, and this is one of those revolutions to which the practice of our art is exposed. The reputation of emetics is again reviving in America—especially in those sections where bilious fevers prevail.

"Exhibited early in such fevers, an emetic operating well will frequently check an attack, and, in the more advanced stages, judiciously repeated, we shall find by it the pulse reduced, pain in the head relieved, sickness of stomach appeased, temperature of the surface lowered, with diaphoresis, which restores quietness, and hastens a critical solution." 108.

Speaking of puerperal fever, and the clashing opinions which have been given of its nature, our author observes as follows:—

"My observations have taught me, that, in this species of puerperal fever, venesection is of indispensable utility, though only in the early stages of the attack, and that, on the whole, I have derived most advantage from it, aided by prompt and copious purging, the occasional use of an emetic, when clearly indicated; by fomentations, and emollient embrocations to the abdomen, and, in the more advanced period of the disease, from the regular exhibition of camphor alone, in large doses, or with opium and emetic tartar, and, finally, by the spirit of turpentine externally applied, and internally given in such quantities, as shall make a decided impression." 113.

Our author's general remarks on emetics, and also his remarks on the particular substances employed, are judicious, but not particularly novel to the profession.

2. *Cathartics.* Professor Chapman's observations under this head, are characterized by judgment, and indicate careful attention at the bed-side of sickness. We cannot advert but to a very few points of this section. Dr. C. is a strenuous advocate for the chylopoietic origin of gout, and for the practice of free purgation in that disease. He bewails the lethargy of the profession in respect to the treatment of gout, occasioned, he thinks, by the doctrines of Sydenham and Cullen.

"My impression," says he, "very concisely stated, is, that this disease, if not originating in, has a most intimate connexion with, certain states of the alimentary canal. I am inclined to this view of the subject, among other reasons, from having so frequently observed gout to commence with those symptoms, which denote a depraved condition of the stomach and bowels. The principal indications of an approaching attack of the disease, are almost invariably, flatulence, sour eructations, indigestion, depraved appetite, nausea, strong sensations of internal heat, and obstinate constipation, or laxity of the bowels."

"I have now, for many years, habitually employed purgatives in the paroxysms of gout, and with unequivocal advantage. Not content with simply opening the bowels, I completely evacuate, by active purging, the entire alimentary canal. This being accomplished, all the distressing sensations of the stomach which I have mentioned, are removed, the pain and inflammation of the limb gradually subside, and the paroxysm, thus broken, speedily passes away. To effect these purposes, however, it is often necessary to recur to the remedy repeatedly." 190.

In palsy, our author asserts, that he has derived far more success from free purging, than from the usual routine of bleeding, blistering, and stimulating embrocations, to which he formely had recourse.

"Dissatisfied with this course, I have, for many years, abandoned it, and rely, now, almost exclusively on evacuating the bowels, by the drastic purgatives. Of the propriety of the change, I can entertain no doubt, the success having exceeded my most sanguine expectations. To do justice to the practice, it should be steadily persisted in, and aided by such remedies, as the cases may, from time to time, demand. Of the auxiliary means to which I allude, there is none so important as a repetition of blisters, not to the affected limb, for this is comparatively useless, but to the back of the neck, or, what answers still better, caustic issues on the same part, or behind the ears, or on the top of the head. These drains must be kept freely discharging, by irritating dressings." 193.

In epilepsy, Dr. Chapman has had considerable success from purgatives, to which he was led by the total failure of the ordinary plans of treating the disease—his views coincide with those of Dr. Prichard, in placing the cause of epilepsy very frequently in the bowels. In respect to purgatives, however, "it will not do (he says) merely to evacuate the bowels; cathartics must be repeated day after day, without interruption, unless absolutely forbid by circumstances." By continuing this course for several months successively, he has cured several cases of the disease completely, and afforded considerable relief in others. It is not to be understood that he confines his whole methodus medendi to purgation. Local and general bleeding, low living, and other auxiliaries are employed.

On the particular purgatives, our author is copious, and in general, correct in his observations, but we cannot follow him in this division of the subject. The following passage will give great offence to the anti-mercurial drivellers of this country, who seem to think they are on the point of driving every preparation of mercury entirely out of the pale of practice.

"Calomel, on every account, seems to be peculiarly adapted to the cases of children. Whether we wish to relieve actual disease, or merely to evacuate the contents of the bowels, it operates leniently and efficaciously. Yet, by many, it is supposed to be a very violent purgative, and, hence, there is a sort of popular prejudice against its use in the complaints of children, an error, which leads to so much mischief, that we ought to unite to remove it. From an extensive experience with the medicine, I am entirely convinced, that in those cases, its action is incomparably milder, than in more advanced life."

"The dose of calomel for an adult, when taken alone, is from ten to twenty grains. We commit a mistake in giving too small a quantity of this medicine. Employed largely, its action is infinitely less irritating to the stomach and bowels—and is not so apt to be rejected by vomiting—its purgative operation being more prompt and complete. I have known a drachm to be taken at a time without inconvenience, and even without much increase of effect." 229.

We do not advocate the latter practice in this country, where cold and atmospheric vicissitudes are apt to interrupt the action of purgatives and render their effects more uncertain—consequently where the medicine would run sometimes to the mouth, when it did not pass freely through the bowels. Nevertheless we can vouch for the correctness of Dr. Chapman's statement, and for the propriety of his therapeutical observations, especially as they relate to the climate in which he lives, and other climates of a still hotter kind.

Speaking of Rhubarb, our author makes the following statement which, if confirmed by others, will prove a discovery of the greatest utility in the practice of medicine.

"It (rhubarb) has also this further peculiarity, that, however combined with opium, its purgative property is not at all restrained: and, hence, is invaluable in cases where a necessity for evacuating the bowels is connected with so much pain, as to demand the interposition of opiates. Of the accuracy of this observation, which, so far as I know, is original, I cannot permit myself to doubt, having confirmed it by ample experience." 231.

3. *Diuretics.* Our author's observations on this important class of medicinal agents are by no means uninteresting or uninstructive, especially to the junior classes of society. Dr. Chapman's views will not permit him to subscribe to the belief that articles of this class enter the circulation, with a retention of their powers, and act directly on the kidneys. We confess that the doctrine of sympathy has also its difficulties in explaining the modus operandi of diuretics. The discussion of the theoretical question does not, however, materially affect the practical application of the knowledge we possess on the subject. It is pretty generally agreed that an increase of the urinary secretion may take place either by stimulating the kidneys, or by invigorating the powers of absorption. It is also well known that the skin and urinary apparatus are vicarious in their action. On this account, in the administration of diuretics, we ought to avoid much external heat. The operation of this class of medicines is also well known to be greatly increased by plentiful dilution; and we believe all idea of danger from indulging in the latter, where dropsical effusion prevails, is now pretty nearly abandoned. The effect of diuretics is moreover promoted by the direct reduction of arterial action—especially by bloodletting, a fact that was well known for many years in this country and America, long before Majendie, by his late experiments, excited the attention of the profession to this point.*

We agree with Dr. Chapman, and with many of the ancient writers, that the urinary secretion is a more important agent both in health and in disease than modern physicians seem to allow.

---

* Our tropical writers have long ago shown that, in the grave fevers of those climates, mercury would not be absorbed, nor purgatives act till copious depletion by the lancet had taken place. Yet Majendie is lauded to the skies for *discovering* in dogs what had long been discovered in man!

"The kidneys are one of the emunctories, through which nature, when oppressed by disordered action, endeavours to relieve herself, and this she does chiefly, by throwing off the more watery parts of the blood, which, in some instances, amount to a very large quantity. Evacuations of this kind by emptying the blood vessels, though, perhaps, not so effectual, have, unquestionably, a tendency to reduce morbid excitement, and, therefore, are entitled to be classed with the other depleting remedies, as venesection, sweating, purging, &c." 266.

Of the particular diuretics it will not be in our power to take any material notice. It appears that Dr. Chapman has been in the habit of administering the bals. copaibæ in the first stages of gonorrhœa, for twenty years past, and experience, he says, has increased his confidence in the remedy. The following is one of the forms which he has found to agree best with the stomach.

R. Bals. Copaib.
Spir. æth. nit. āā ʒss
Albumen. ovi—
Sacchari alb. āā ʒi
Aquæ fontanæ—ʒiij. m ft. mistura, cujus capiat cochleare unum mag. ter die.

In the treatment of gonorrhœa he strongly insists on one particular caution—rigid abstinence and perfect repose. To our knowledge these *alone* will cure nine cases out of ten of gonorrhœa in a shorter space of time than any other remedy in the materia medica.

The squill is a favourite medicine with Dr. Chapman in dropsical effusions of the chest—a disease very common in America. He exhibits one grain of squill and three of calomel, night and morning.

"When calomel purges unduly, which it will sometimes do, we may restrain it, by adding to the preparation a little opium. In the use of mercury, the mouth becoming affected, is always an auspicious circumstance. I have observed, especially in hydrothorax, that the distressing symptoms commonly subside on the appearance of ptyalism, which is not altogether owing to the mercurial action, since mercury alone will not so often produce the same effect." 300.

IV. In the section on lithontriptics we do not see any thing that need detain us, unless it be the following passage.

"The relation which the terebinthinates bear to the urinary organs, is well established. But in no case do they display such valuable powers, as in the connexion of the lithic diathesis, and in the alleviation of the pain of the nephritic paroxysm. Of the different preparations of turpentine, the oil is to be preferred for these purposes, and its effects are often very extraordinary. I have known a single dose to put an end to the deposition of

red sand, and, at the same time, relieve the most acute suffering, with the promptness of an opiate. On what principle it operates is not very intelligible, though it would seem that its appearance in the bladder is necessary to its success. I am told by Dr. Physick, to whom I owe much of the information which I possess on the subject of this article, that whenever it has failed with him, the *violet odour* was wanting in the urine.

"The oil of turpentine may be directed in these cases, in the dose of from ten to twenty drops, several times a day, and the best mode of exhibition, is on a tea-spoonful of powdered sugar, to be washed down with a little water." 343.

V. *Diaphoretics.* This section contains much judicious observation and sound reasoning. Speaking of the good effects of diaphoretics in bowel complaints, our author makes the following remark—a remark which our readers know we have often made in this journal as well as elsewhere.

"It has long been my conviction, that, in the bowel affections, we have, as a general rule, *purged infinitely too much.* Cherishing, still, the antiquated notion of morbid humours, it is usual, in these complaints, with some practitioners, to evacuate the intestines, as long almost as any discharge can be procured, under the impression, that the matter retained is irritating and offensive, and, therefore, the immediate source of all the mischief. *The very reverse of this, I hold to be true.* It appears to me, that the accumulation of acrid matter, is the *effect of previous irritation* in the stomach and bowels, which causes an increased effusion from the mucous follicles, or the exhalent vessels, and, sometimes, a very vitiated secretion of bile. Deducing my practice from this view of the nature of the disease, I have been accustomed, after comparatively moderate evacuations, to exhibit medicines so compounded, as to meet the double indication of allaying intestinal irritation, and, more remotely, of relaxing the surface. Combinations of opium and ipecacuanha, to which calomel may sometimes be added, are an invaluable preparation for this purpose. But the irritation being excessive, and, as usual, productive of frequent and painful discharges, I either augment the quantity of opium, or, what is more effectual, administer anodyne injections, three or four times in the course of twenty-four hours. These remedies will, in most cases, calm the irritation of the bowels, and, as soon as this happens, the acrid discharges, together with the other symptoms, cease to be troublesome." 365.

Speaking of the particular diaphoretics, our author has occasion to mention sulphur, both as an internal and external application, and states the following fact.

"On this subject, I shall further observe, that I have found nothing so speedily to cure tinea capitis, as an ointment made of an ounce of sulphur and lard each, with an addition of two drachms of sal. ammoniac. No cutaneous disease is more difficult to manage,

than this species of eruption is sometimes. I have known cases of it to baffle the united skill of some of the ablest practitioners. But, since using the above ointment, I have been uniformly successful." 392.

We have now closed the first volume of the work before us, and as it would extend this article too far to notice the second volume, we shall defer the analysis of it till our next number. Our opinion of Dr. Chapman's publication is decidedly favourable, as may be easily gathered from the general tenor of this article.

V.

The Dublin Hospital Reports and Communications in Medicine and Surgery. Volume the Third, Octavo, pp. 500, three plates. Dublin, 1822.

The Dublin Hospital Reports continue to uphold their character, as unquestionably the first work of the kind which now issues from the periodical press. How long they may persevere in this course of zeal and talent, we shall not venture to predict, since the history of such works gives us the mortifying information that every publication of the kind has, in time, degenerated from its pristine vigour. This affords no proof, though a strong probability, that a similar fate awaits the work before us, as well as every other of the present day. But we have no business with prognostications; our duty is to exhibit the actual state and condition of the work before us.

This volume contains nineteen communications, the first of which, Dr. Cheyne's report on dysentery, we have analysed with Dr. O'Brien's work on the same subject, in a separate article. The second paper then is a—

Report of Cases of Aneurism in the Richmond Surgical Hospital. By Charles H. Todd, one of the Senior Surgeons to that Establishment.

The operations for aneurism, though now-a-days not rare nor timidly executed, are yet sufficiently interesting to deserve commemoration. The ligature of the external iliac, carotid, and subclavian arteries, is one of the proudest boasts of modern surgery.

In respect to the operation on the external iliac, Mr. Todd adopted the mode described by Sir Astley Cooper, in pre-

ference to that recommended by Mr. Abernethy. This preference was given after repeated trials on the dead and on the living subject, because " Sir Astley Cooper's method afforded the operator a greater facility of applying the ligature to the artery, more room being obtained by it, and with less disturbance of the peritoneum than by the other mode." When, however, it is necessary to apply a ligature to a higher part of the artery, Mr. Abernethy's method may, he thinks, be employed with advantage.

The two cases that terminated fatally exhibited not the slightest traces of peritoneal inflammation, and in both, the collateral circulation was quickly and effectually established.

"The cases of popliteal aneurism are related chiefly with a view of recommending a more general adoption, than is at present practised, of a preparatory course, previously to operation. I can scarcely doubt but that in many cases of aneurism, in which operations have failed, from mortification of the limbs succeeding, the patient might have been saved by a delay sufficient to allow some progress to be made in establishing the collateral circulation; and I feel confident that this desirable object may be promoted in most instances of recent disease, situated at a sufficient distance from the trunk, by compressing the principal artery of the limb for a few hours every day, for a period which must vary according to the circumstances of the case." P. 94.

In some instances, however, notwithstanding every effort to diminish the force of the circulation, an aneurism will increase rapidly—in which case, delay must not take place, and the operation must be resorted to before the tumour has acquired such magnitude as to endanger the soundness of the integuments. If the health also suffers from local pain or irritation, the operation cannot safely be postponed.

Case 1. A young woman, 22 years of age, of robust habit, and florid complexion, was admitted into the Richmond Hospital on the 26th of May, 1819, having a large oblong tumour on the superior and anterior part of the thigh, close to Poupart's ligament, beyond the plane of which, it projected considerably, and ascended so much, that the ligament was arched across the upper part of the swelling. Fluctuation was evident, although the tumour was tense; but no pulsation could be felt, and the superincumbent integuments were not discoloured.

" On the inner side of this tumour, and extending to the left labium, a smaller tumour existed, between which and the large one there appeared to be a direct communication at their bases, although a depression of the skin divided them on the surface; this tumour was also tense, with fluctuation; but its integument was healthy. The

thigh, leg, and foot, were slightly œdematous; the patient complained of pain on the inside of the knee, and of some numbness of the entire limb—her pulse was perfectly regular; she had no palpitation of the heart or oppression of the chest, and her general health was in every respect unimpaired. Pressure upon the external iliac artery did not affect the size or tension of the tumours; neither were they perceptibly diminished by pressure directly applied to them. No pulsation could be discovered in the course of any of the large arteries below the tumour, although the temperature of the limb corresponded exactly with that of the other." 97.

She said that for four or five months previously, she had felt pains about the groin, at first slight, but gradually increasing. She next perceived the tumour, but denied the existence of pulsation in it at any period.

Two days after admission, (28th May) our author proceeded to make an oblique puncture into the tumour with a very small lancet, when a dark-coloured fluid blood flowed from the wound in a gentle but continued stream. When a director was introduced, the blood flowed more rapidly, and carried with it small coagula and particles of colourless fibrine. The wound was closed by adhesive plaster. On the 1st of June, the tumour, having increased in size, and become more painful, so much resembled an abscess, that another puncture was made with the same result as before. On the 2d of June, the circumference of the diseased thigh, including the tumour at its most prominent part, measured 19½ inches, while that of the other limb was three inches and a half less. In consultation, it was agreed that the ligature of the iliac artery presented the only prospect of relief, and on the 3d of June it was performed in the manner recommended by Sir Astley Cooper. On the ligature being tightened, the patient did not complain of any particular sensation in the limb, nor was there any evident alteration produced in the tumour. In the evening there was numbness, with some decrease of temperature in the limb—pulse 100, skin hot and dry. Venesection, effervescing draughts, &c. Sickness at stomach, and pulse at 120, were noted on the 4th of June. On the 7th, there was some hæmorrhage from the tumour, which was considerably diminished in size. The bleeding was easily suppressed. On the 8th, the discharge is profuse—coagula came away freely, some resembling putrid blood—others of a yellow colour, and pulpy gelatinous consistence. We cannot follow the daily detail of symptoms; but have only to state that she died, worn out with pain, irritation, fever and discharge, on the 17th of June, about a fortnight after the operation. We shall give the dissection in the words of our author, by which our surgical readers will be enabled to judge whether this was

really an aneurism, or a fungoid or hæmatode tumour. We are inclined to the latter opinion.

"The tumor was laid open to its fullest extent, and its putrid contents having been washed out, the internal surface presented a very irregular appearance; no trace of a distinct sac could be observed. The small branches of nerves, which seemed to have resisted the putrefactive effects of the contents of the tumor, were completely insulated, and extended through the cavity unaccompanied by veins or arteries. The muscles, except where they formed the walls of the cavity, were healthy, but somewhat paler than natural. Rather more than three inches of the femoral artery was wholly destroyed; the upper extremity of it was found in a contracted state, immediately below Poupart's ligament. The lower part of the artery contained a coagulum, which filled its cavity for several inches; the outer surface of this coagulum was very firm, of the colour of fibrine, and in close apposition with the internal surface of the artery; the red globules and more liquid parts of the clot were contained within this fibrous layer, which gave the coagulum a tubular appearance. The anterior part of the crural vein, immediately below the ligament, and where it lies parallel to the artery, was destroyed for more than an inch, and thus opened into the cavity of the tumor.

"The external iliac artery contained a firm clot, which extended from the point at which the ligature was applied to the orifice of the internal iliac. This clot adhered very closely to the internal coat of the artery, and when torn from it, the latter appeared vascular and villous.

"The ligature was quite detached, and had every appearance of having been so for some days." 111.

The second case presents no ambiguity. The patient was a printer, 28 years of age, who had received a blow from the handle of the press on his left groin, about six or seven months previously. Soon after this injury, a small pulsating tumour was perceived in the part, which gradually increased, and presented the following appearances on admittance into the Richmond Surgical Hospital, on the 14th November, 1820.

"His countenance is pale and sallow; his stature is low; his limbs small, and he appears to possess a weak and delicate constitution. Immediately below Poupart's ligament, on the left thigh, there is an aneurism of the femoral artery; the tumor is as large as a swan's egg; it pulsates strongly; pressure above the tumor suspends the pulsation, and the swelling almost entirely subsides; the integuments are healthy; about two inches below this, and in the line of the femoral artery, there is another tumor of great magnitude, and of a globular figure; it extends to the internal condyle of the femur; has a tense firm feel, with an obscure fluctuation; the integuments are of a dusky yellow colour, and are traversed by three or four enlarged veins." 112.

When horizontal, no pain in either tumour. There is some

numbness in the leg. He was kept in the hospital till the 4th of December, during which time his general health improved by proper diet and medicines. On the above day, Mr. Todd tied the external iliac artery without any difficulty. The ligature drawn, the pulsation in the inguinal tumour ceased, and the tumour itself became flaccid. The lower tumour remained unaltered. On the 7th, we observe that there was some tenderness near the wound, the pulse being 112. Venesectio ad ʒx. The inguinal tumour has acquired a solid feel, and pressure has no effect in diminishing its bulk. The lower tumour is smaller, and much softer than before the operation. On the 8th, he was again bled, having some uneasiness in the lower part of the abdomen, with headach. On the 25th, the ligature came away—the wound is healing—the tumours much diminished, and free from pain—the countenance improved—good appetite—bowels regular—pulse 80. On the 28th, a profuse hæmorrhage suddenly took place *per saltum*. Pressure stopped the flew—a composing draught was exhibited—and the strictest quietude enjoined. The wound was left uncovered. December 30th, a hæmorrhage this evening to the amount of six ounces, which was suppressed, as before, by moderate pressure. His bowels are confined, and a circumscribed tumour, with pulsation, is indistinctly felt, in the abdomen, to the left side of the umbilicus. No hæmorrhage recurred after this till the 15th of January, when a considerable flow took place. It was now determined to apply a ligature to a higher part of the artery.

"While we were fixing the patient on the operation table, a profuse hæmorrhage took place, which was stopped by Mr. Cusack pressing with his finger at the bottom of the wound, until I inclosed the iliac artery in a ligature. This was effected without difficulty, an incision having been made through the abdominal parieties, in the direction of the artery, as recommended by Mr. Abernethy, so that this and the former incision somewhat resembled an inverted *T*. The patient bore the operation with great fortitude, and his progress was as favourable as could have been expected for several days. On the evening of the 21st, however, he had a very severe rigor, which continued for almost an hour; this was succeeded by a hot fit of a few minutes duration, and the paroxysm terminated in a profuse sweat, which lasted for some hours, and weakened him exceedingly." 119.

On the 22d of January, symptoms of trismus, and, ultimately, of tetanus, came on, and terminated the patient's existence in two days.

"*Dissection.* The larger tumor was found to consist of an irregular sac, with which the femoral artery communicated by a small aperture, which had the appearance of a rent in the coats of the artery anteriorly; the sac was formed of all the contiguous structures,

and its interanl surface was dark coloured, and very unequal; its contents were grumous blood, almost in a state of solution, and some soft coagula of lymph.

"The femoral artery, at the place of the first ligature, was open at both extremities, but the superior orifice appeared actually dilated; and we could not discover that any process had taken place here tending to the obliteration of the artery. It was a matter of surprise to those who attended the dissection that hæmorrhage had not sooner occurred, and that it did not prove immediately fatal.

"The ligature applied in the second operation was completely detached from the artery, and lay loose in the wound; here the orifices of the artery were closed, and a coagulum of more than an inch in length occupied the upper extremity." 121.

The third case, was a farmer, aged 30 years, of a florid complexion, and delicate habit, admitted the 30th of June, 1820, for aneurism in the right ham. After hard labour in ploughing, five weeks previously, a pain and swelling of the leg took place, and soon a tumour in the ham was perceived, rather larger than an egg, and pulsating strongly. The contents of the sac were quite fluid, as it could be emptied completely by pressure. The disease being so recent, the patient was confined to the horizontal posture, put on low regimen, and occasionally bled and purged. Our author next contrived an ingenious truss, the pad of which being placed in the line of the crural artery, controlled the circulation in the femoral artery, at the same time that the collateral vessels suffered little or no compression. After a trial of several weeks, the patient could not be persuaded that any advantage was gained. The tumour, however, had obviously diminished, and its contents had acquired a firm consistence. The patient complaining that his health and spirits were suffering by the confinement and low regimen, it was determined to operate. In this case, two ligatures were applied, though our author considers, that little or no advantage is thereby gained, but that, on the contrary, the second ligature may prove an additional source of irritation. He proved a very troublesome patient—much constitutional disturbance ensued—but he was ultimately discharged cured, the knee-joint being still very stiff, but the tumour much diminished. He was afterward seen in good health and the tumour quite gone.

The fourth case was very similar to the foregoing. Preparatory treatment was employed, and the operation succeeded perfectly. The fifth case was an aneurismal tumour on the posterior part of the right fore-arm, for which Mr. Todd tied the brachial artery, at about two inches above the internal condyle of the humerus, when the pulsation in the tumour, and in the radial and ulnar arteries, immediately ceased, the pain, also, greatly subsiding. This patient perfectly recovered.

In a subsequent part of the volume, Mr. Todd has related a case of unusually large aneurism of the right axillary artery, in which the subclavian was tied. This case will be found detailed in the third volume of this Review, page 402, *et seq.* and forms one of the noblest trophies of modern surgery.

The next paper in the volume of transactions under review is a—

II.

Report on Puerperal Fever, in answer to Queries from the General Board of Health. By John C. Douglas, M. D.

Dr. Douglas admits, that the present paper bears the character of "a hasty composition," and that it would admit of amplification; but for our own parts, we often prefer a hasty to a studied composition, in the relation of medical facts, as being less liable to a *tinge* in passing rapidly through the channel of the mind.

To the first Query, respecting the epidemic and recurrent character of puerperal fever, Dr. Douglas answers that, except in the lying-in hospital, he cannot say that he ever saw the disease epidemic. In the hospital he resided during the years 1809-10-11, and in that time, puerperal peritonitis "was decidedly *endemial*." The sporadic cases of the disease met with in private practice, he thinks, may be subdued in the course of a few days, if judiciously treated. He imagines that the fatal cases of the casual fever, whether in hospital or private practice, would scarcely rate so high as one in six; "whereas, in the truly epidemic fever, hardly one half of those absolutely attacked recover." This last he considers to be a very aggravated modification of, if not a quite different disease from, the sporadic fever.

To the second Query, whether he has known the term puerperal fever applied to diseases differing in their nature? our author answers—

"It is customary to apply the term puerperal fever to diseases very considerably, although not entirely different; different both with respect to their exciting cause, and as to the type of their pyrexia, although always similar in the great leading characteristic—abdominal inflammation and pain. I have for many years been of opinion, that there is not a greater difference in the type of that pyrexia, which accompanies a case of any purely inflammatory disease, as phrenitis, pleuritis, &c. and from such down through every grade of fever to the plague itself, than there is between the type of the pyrexia, attending a casual* case of puerperal fever, and of that at-

* "By the term casual case of puerperal fever, I mean such as occasionally occurs, both in hospital and private practice, when the disease is

tendant on the true puerperal epidemic; and I feel myself justified in attributing the discrepancies of opinion, every where existing with regard to the nature, and the various and even opposite modes of treatment recommended by different authors for the cure of puerperal fever, to deficiency of nosological distinction." 144.

To the third Query, is it contagious when epidemic? Dr. Douglas answers in the affirmative, "but, for the most part, only to lying-in women." He believes, however, that a woman, either pregnant or while nursing, or even a very delicate female for several months after lying-in, might be susceptible of the disease. Cases occurring under these different circumstances have happened within his own knowledge. He is apprehensive that the contagion may be conveyed by persons much engaged in hospital duty, at a time when its atmosphere is heavily loaded with this peculiar effluvium.* The remaining Queries and Answers are not particularly interesting or conclusive; we shall, therefore, pass them over, in order to take some notice of the appended "Observations."

Our author proposes to divide puerperal fever into three species, *viz.*—

Synochal puerperal fever,
Gastro-bilious puerperal fever,
Epidemical or contagious puerperal fever.

"The cases that I rank under the first distinction are all those attended with pyrexia, similar to that of any other purely inflammatory disease. These are neither produced by contagion, nor are they themselves infectious. They are usually the result either of tedious or ill-managed labour, or of exposure to cold or other adventitious cause, after delivery.

"This form of the disease is to be subdued by copious blood-letting, and other sedative and evacuant remedies, viz. antimonials, purgatives, enemata, fomentations, &c. The abstraction of blood, however, should here be considered our sheet-anchor: this fluid must not only be early and copiously taken, but the operation should be repeated in proportion as the pulse or abdominal pain may afterward indicate. The pulse, I may remark, is often in this, as in every variety of abdominal inflammation, deceitful. I therefore regard the degree of pain felt on pressure, as a preferable criterion, by which to regulate the abstraction of blood; and I cannot refrain from stating it to be my opinion, that the reason of this inestimable remedy having

---

not epidemic, and which is excited by accidental causes, either during labour, or subsequently to delivery. In these cases, I presume the local inflammation more frequently to be primary, and the pyrexia to be consequential; whereas, in the epidemical, I consider the pyrexia to be primary, and the local affection to be consequential."

* He has generally perceived by the sense of smell, the effluvia of puerperal fever, when epidemic, on entering the wards.

so frequently failed of the desired effect, and having been by some condemned as useless or even injurious in this and other diseases, is not owing to genuine inaptitude in the remedy, but to the inefficient manner in which it is often applied by timid practitioners." 153.

Under the second species our author includes those cases wherein the disease does not so rapidly assume a decidedly inflammatory character—where the fever does not, as in the former case, commence with a bounding, incompressible pulse; "but with a pulse frequent, hard, and concentrated; neither are the symptoms of abdominal inflammation so early evolved." Yet such inflammation, our author observes, does exist, and progresses, when not checked, although more slowly and more obscurely than in the former species. The tongue is here loaded as in common bilious fever; "whilst in the former it is usually white, or cleanly florid, with sometimes a glazed appearance."

"The treatment here should likewise commence with blood-letting, but in more moderate quantity; immediately after which ten or twelve grains of calomel should be administered, and followed in a few hours by an ounce of castor oil combined with some other briskly purgative medicine. These medicines, unless given in large doses, will produce but little effect, in this complaint; and it is of paramount importance that the mucous surface of the intestinal canal should be effectually acted upon early in the disease in all cases, and more particularly whilst the morbid action of the peritoneal covering is under a kind of panic from the blood-letting, and before that inflammatory action can re-organize its broken force. Often, by such prompt treatment, will the disease be arrested *in limine*; should it however advance, whether in increased or subdued violence, purgative medicines, varying in kind, must be daily administered, assisted by enemata, fomentations, topical blood-letting, &c." 154.

That form which our author arranges under the third head, he considers to be "the really contagious or epidemical puerperal fever; and although agreeing with the others in the great leading symptoms, inflammation, pain, tumefaction and tension of the abdomen, yet differing from them in many material characters."

"The sensorium here is seldom in any degree disturbed; whereas in the others it is so, frequently, and even sometimes is excited to high delirium. The pulse here is usually from the moment of attack, soft, weak and yielding, and in quickness often exceeds 160, whereas in the first species it is full, bounding, and incompressible; and in the second, small, hard, and concentrated, and in both moderately quick. The eye, instead of being suffused with a reddish or yellow tint, as in the others, is here generally pellucid, with dilated pupil. The countenance, instead of being flushed as in the others, is here pale and shrunk, with an indescribable expression of anxiety; an expression altogether so peculiar, that the disease could, on many occasions, be pronounced or inferred

from the countenance alone. The surface of the body, instead of being as in the others, dry, and of high pyrexial heat, is here usually soft and clammy, and of heat not above the natural temperature, and not only is the skin cool with clammy exudation, but the muscles, to the impression of the finger, feel soft and flaccid as if deprived of their *vis insita*, by influence of the contagion. Indeed there is such prostration of muscular strength, and depression of vital principle, from the very onset of the attack, that I must suppose the contagion to act upon the human frame, probably through the medium of the nervous system, in a manner analogous to that of the contagion of the plague; and perhaps the African plague does not commit greater havoc among an equal number of infected persons than puerperal fever in this country; nor is puerperal fever less quickly fatal than the plague itself." 156.

It appears to us that this form of fever does not agree with the general descriptions of epidemic fevers in other times and places, as given by various authors. We must therefore suppose, what indeed is very probable, that the epidemic of Dublin differed in character from the epidemic of Edinburgh and other places, thus requiring a modification of treatment. It will not fail to strike the notice of our readers that the above extract conveys a tolerable idea of what has been described in this country as the *congestive* form of puerperal fever—a form by no means common in the epidemics of this country and Scotland. We suppose the climate and habits of the Irish must be the *principal* modifying causes. The mode of treatment recommended by Dr. Douglas we shall give in his own words.

"Without pretending to detail any of the various modes of treatment, which I may have seen pursued either successfully or otherwise, I would here recommend the practitioner to commence by administering ten grains of calomel, combined with two grains of powdered opium, in the form of bolus, or of pills; likewise, as early as possible, a briskly purgative enema. After the operation of the enema a number of leeches, from two to four dozen, according to circumstances, should be applied to the abdomen, and the abdomen should afterward be stuped with flannel clothes, wrung from warm water; and not only at this period, but frequently through the whole course of the disease, should such fomentations be used. Three or four hours having elapsed from the time of administering the calomel and opium, three drachms of pure oil of turpentine, with three drachms of syrup and six drachms of water, in the form of a draught, should be swallowed; and, after the lapse of another hour, this is to be followed by an ounce of castor oil, or some other briskly purgative medicine. In some instances, the oil of turpentine and castor oil may be combined in one draught; but I generally prefer giving the turpentine as here recommended. Some of these remedies, occasionally assisted by others suitable to

the peculiarities of the case, are to be repeated as circumstances may indicate; but I would not be disposed to repeat the internal use of turpentine oftener than twice, in any case whatever. In several cases particularly where the debility is very considerable, the blood-letting may be altogether omitted, and in these cases a flannel-cloth, sopped in oil of turpentine, should be applied to the abdomen, and allowed to remain on for the space of about fifteen minutes. This external application of turpentine, without either its internal use, or the aid of blood-letting, I have frequently experienced to be entirely efficacious in curing puerperal attacks; and although I have hitherto omitted to speak of turpentine for the cure of the other varieties of this disease, yet I would not feel as if I were doing justice to the community, if I did not distinctly state that I consider it; *when judiciously administered*, more generally suitable, and more effectually remedial, than any other medicine yet proposed. I can safely aver I have seen women recover, apparently by its influence, from almost hopeless conditions; *certainly* after every hope of recovery, under ordinary treatment, had been relinquished." 157.

Our author does not pretend to account for the *modus operandi* of the oil of turpentine in these cases. He thinks that where it acts as a purgative, there are rational and philosophic grounds for concluding that the medicine excites powerfully the whole mucous membrane of the intestines, and thus derives the morbid irritation from the peritoneal tunic to a secreting surface, where it is carried off by the increase of secretion itself. But, on the other hand, he has known the turpentine in several instances, even by its external application, relieve the most urgent symptoms of this formidable disease in the course of fifteen or twenty minutes, without producing any sensible evacuation. We do not think that this fact is at all inexplicable on the above-mentioned principle of counter-irritation. If the irritation can be transferred to the external surface of the body, it is still better than to the internal. Our author regrets the discrepancies of opinion respecting this medicine, which are scattered in our periodical works. His own conviction is, that the epidemic puerperal fever of lying-in hospitals, is "neither more nor less than a malignant fever of a typhoid character, accompanied with an *erysipelatous inflammation* of the peritoneal covering of the stomach, intestines, and other abdominal viscera." We have heard this remark made by some very old practitioners in this metropolis; but on pressing them for particulars, we found they could show us no satisfactory proofs of this erysipelatous inflammation as differing from the usual phlogosis of the serous membranes in general. Their dissections exhibited reddening of the membrane—adhesions,—and sero-purulent effusion. If

Dr. Douglas's dissections disclosed any anatomical proofs of an inflammation differing in these respects, he certainly should have stated them; and till then, we shall beg leave to withhold our assent from this assumed division into phlegmonous and erysipelatous inflammation of the peritoneum. By this we do not mean to assert that all cases of puerperal peritonitis will bear vigorous depletion; we have all along expressed our conviction that there are epidemics, where the accompanying fever is of that kind that will not bear depletion as in the sporadic attacks. We agree with our author in the concluding passage of his paper.

"It must, however, be distinctly understood, that I here allude to the type of the pyrexia of epidemic fevers in Lying-in Hospitals. For I am led to believe, when puerperal fever happens to be epidemic at large, in towns or districts, that its pyrexia is rather of the synochal character, and requires for its subjugation the bold and decisive depletions, recommended in Dr. Armstrong's invaluable treatise on this subject." 160.

Upon the whole, we think our professional brethren will be disposed to return thanks to Dr. Douglas for portraying the results of his experience on the important topics discussed in the above paper.

The next paper in this volume is a—

III.

Medical Report, containing an Inquiry into the Causes and Character of the Diseases of the Lower Orders of Dublin. By T. C. Speer, M. D. M. R. I. A. late Physician to the Dublin General Dispensary.

Man is a component part of the earth under his feet and of the elements around him—to which is added a vital principle or organization that leaves him in a condition to be influenced by, but not entirely subject to, the laws of the circumambient unorganized matter. We have no doubt, indeed, that national character, as well as form and other material properties, depends as much on climate and physical circumstances, as on government, laws, religion, and education. Philosophers have attributed too little to the former, and too much to the latter agents. Our author thinks, and not without reason, that Ireland furnishes an illustration of this proposition.

"Irish character, like Irish climate, is full of peculiarities, and without being fanciful, I think we may trace a congeniality between them; like the climate, it abounds in vicissitudes, varieties, and extremes; between the bright and dark, little medium is observed. It is to the lower orders, of course, that this observation chiefly applies; with them civilization seems chiefly made up of two of

the materials above mentioned,* viz. education and amenability to the laws. Now these are the points in which our lower orders, as compared with those of our neighbours, seem particularly backward; two, therefore, out of the four moral causes being more or less withdrawn, the influence of natural causes, such as climate, must, with us, be infinitely greater." 164.

While remarking on the diseases of the lower classes, our author makes some keen reflections on the advantages and disadvantages (to the medical practitioner) of Dispensary practice. As this practice is now pretty generally monopolized by our junior brethren, we shall give Dr. Speer's sentiments on the subject, in hopes that they may profit by his observations.

"The practice of a general Dispensary is perhaps the most complete introduction to the diseases and indeed to the distresses, habits, and character of the lower orders of a city. Sorrows and sufferings are here unveiled, which shame will hide from the public eye; here we shall see how the chain of poverty has its various links, and the cup of bitterness its various dregs; here we become associated with disease in all its varied and complicated shapes, and here we are most promptly and powerfully called on to combat it with the rules of our art.

"Dispensary practice has its advantages and disadvantages pretty equally mixed; it creates promptitude; it affords a wide range of insight into local peculiarities; it opens an immense and diversified page, not only in the book of medicine, but of mankind; it breaks away the fancies of the closet, and the bondage of the schools, and gives confidence and courage at the bed-side of a patient. On the other hand it has its disadvantages; it creates a coarseness of practice; we know we are dealing with raw and uncertain materials, and we find the most common plans of treatment often answer the best; by these habits our thinking and theorizing powers are weakened and hurt; we cannot gain very much as to the effects of our medicines, because we know these effects may be, and are, counteracted by improper diet and regimen. We cannot, as in Hospital practice, restrict our patients to certain rules and laws, nor confide them to nurses or even friends who can be relied upon. We reason, therefore, much less on the *modus operandi* of our medicines, and thus an unfair spirit of distrust and empiricism may be generated." 167.

There is another inconvenience attending dispensary practice among our younger brethren, far greater than those delineated by Dr. Speer. It is this:—diseases, when caused or accompanied by want, the depressing passions, filth, and unwholesome food, are greatly modified thereby, and vary much from diseases of a similar kind among the higher

* Government, laws, religion, and education.

classes of society, where, in fact, the circumstances are diametrically opposite. The young practitioner, therefore, who has not a proper balance of practice among the different classes, must neccessarily form erroneous opinions and contract partial views of diseases, upon several occasions. Still the Dispensary is the very best school *he* can have; and time will correct the imperfections from which no institution is free.

The causes which lead to the formation of disease in the lower orders of the Dublin population, our author classes under the heads of climate, poverty, population, and national character.

1. *Climate.* The thermometric range is not near so great in Dublin as in England or Paris. The summer heat seldom exceeds 75°, and in winter the thermometer is rarely below 25°. But *within* the above range, the vicissitudes are more sudden in Dublin than in the other capitals. "Even in the twenty-four hours, variations will amount to 20, 25 or 30 degrees, so that we have often seasons of the day as well as seasons of the year." But though very fickle in its temperature, the atmosphere of Dublin is pretty regular in its currents of air. The westerly and southwesterly are the great trade or reigning winds, and are to all the others put together as three to one. Next to variability of temperature, humidity seems the most characteristic feature in the Irish climate, not only as indicated by the rain guage but also by the hygrometer.

"Such seem to be the chief peculiarities of our climate, and we may, I believe, as compared with that of England, say, in general, that it is more free from extremes in temperature, but more variable, humid, and cloudy; that our seasons are less distinctly divided, our springs more cold and severe, our summers more wet and temperate, our autumns more alike each other, and our winters much milder. Speaking without comparison, it appears from various and numerous observations, that spring is our severest season, summer our wettest, autumn our driest and warmest, and that our winters are, except towards the close, generally mild and open." 175.

It is in the order of phlegmasiæ that we must chiefly look for the effects of the climate above described. The sanguineous system is the one principally affected—and inflammation characterises the diseases. These sudden changes of temperature acting on an unprotected, ill-fed, ill-clad population, produce more or less sudden determinations to particular organs, and proportionally derange the balance of the circulation.

"How far humidity, unaccompanied with severe cold or heat, contributes to the production of disease or health, is as yet a point not clearly settled; the latter would with us seem rather to be the case, Dr. Rutty thought our moist seasons the healthiest, at least much freer from epidemics, and his various observations go decidedly to confirm this opinion; this has also been the opinion of other observers since his time, who think that, unless with great variations of temperature, severe cold, and easterly winds, our humid seasons are in general our healthiest. A single proof of this seems to have been furnished in the year 1816, which was remarkably healthy and remarkably wet. Dr. Franklin, and Dr. Percival of Manchester, conceived that moist seasons are healthier than dry ones, ceteris paribus; and Sir John Pringle seems to have been of a similar opinion. It is only therefore in its combination with extremes and varieties of temperature, &c. that we consider humidity in its promotion of disease, and even here we know not how far to go." 177.

Spring is the grand season in Ireland for pulmonic affections. But notwithstanding the great humidity and changeableness of the sister climate, scrofula, at least in its usual forms of developement, is a rare disease comparatively with England and Scotland—and even pulmonary phthisis is far less common in Ireland than in these climates, notwithstanding the ravages of pulmonic inflammation in the former island. This fact would strengthen the doctrine of Dr. Baron and some others that the developement of tubercles in the lungs is not strictly an inflammatory process, though the said developement does undoubtedly occasion inflammatory action in the neighbouring parenchymatous structure of the lungs.

2. *Poverty.* This is a fertile cause of disease, especially in Ireland. Potatoes, salt fish, and tea, are the principal articles of Irish diet among the lower classes. Flesh meat can seldom be procured, and of fish, herrings are the favourite species—probably from their cheapness and stimulating or savoury quality.

"It is impossible not to notice the preference which the lower orders here, compared with those of England, have to *stimulating* or flavorous, rather than *nourishing* food, and indeed their carelessness about the latter, except potatoes. This may be partly explained from their national character, as will hereafter be mentioned. In the diet of the lower orders in England, nourishment is the grand object, and the rules of their diet are conducted with a system and an arrangement completely unknown here. With us, what excites is the chief consideration, and as to regularity in meals the poor are very indifferent about it. With the former the *stomach* is the presiding organ; it seems to hold dominion over all the others, and to be a complete tyrant. With us the *nerves* appear to hold this place, and to these a great deal is sacrificed. It is impossible not to notice, with the lower orders in England, when ill, that their

great and first complaint is 'they can't eat;' here the general complaint is, that 'they have a fluttering or oppression about the heart." 181.

It is curious that, notwithstanding this poverty of food and carelessness of the Irish, the lower orders are capable of labour and fatigue equal, if not superior to their brethren of England or Scotland—in short, Nature seems to have gifted them with hardy and vigorous constitutions.

Under the head of diet, *Tea* seems to hold the highest rank with our poor; unlike its more dangerous rival, whiskey, its draughts, though impoverishing, are not delirious; if it drowns sorrow, it does not drown sense; if it gilds the gloom of poverty, is not the delusion a blessing? It seems, indeed, the general panacea, always affording comfort, calmness, and consolation; constituting not only the leading article of breakfast and supper, but often of dinner, and over its placid inspirations their happiest hours seem to be passed." 183.

Unfortunately, the effects of the other favourite beverage (whiskey) are of a different complexion. The great estimation, our author thinks, in which fermented liquors are held by all northern nations, is a sure proof of their necessity and value. Among the inhabitants of Hyperborean lands there is a perpetual struggle, Dr. S. observes, between the laws of life *within*, and the laws of nature *without*; and whatever gives a preponderance to the *former* will be eagerly sought after. As we approach the Pole, we observe the propensity to spirituous liquors increase. Here life is at a low ebb, artificial excitement becomes indispensable, and the means of procuring it are among the chief objects of the people.

"That the *use* of this fluid with us is attended with great advantages is unquestionable, but that its *abuse* has completely thrown these advantages into discredit, is equally so. Indeed in the entire mass of misery of our poor, whiskey is thought to form the principal remedy; they conceive it a cure for all complaints, and all weathers; in warm weather it allays their thirst; when cold, it heats them; when wet, it dries them; in sorrow they fly to it as a charm and a blessing, and in its intoxicating draughts their misery is forgotten. The bad effects, however, resulting from this fluid with us are not, I think, to be ascribed to the quantity consumed. I believe the lower orders in Manchester, Edinburgh, Glasgow, and some of the large manufacturing towns in Great Britain, consume a greater quantity; but there is a striking difference in the mode of consumption between the two—they do not take it on empty stomachs like our people; they eat much more solid, nourishing food; thus the effects of the whiskey are less directed to the coats and nerves of the stomach, or to the brain, and therefore intoxication does not exhibit

itself so frequently. However, the great proportion of public houses in Dublin compared with others, is a clear proof of the immense consumption of whiskey, and until such is reduced, disease and distress must stalk abroad through our streets." 184.

Our author has observed dropsical affections to constitute a most predominant feature among the diseases of the lower Irish—especially among females. This might be expected from the general indulgence in weak, watery, and intoxicating fluids, indolence, poverty, &c. Their attachment to salt and salt food is constant. Salt herrings and potatoes is the standing diet.

Our author has found constipation of the bowels a remarkable and almost universal phenomenon among the class in question, whether in sickness or health, and consequently he has found no remedy so directly and almost invariably useful as purgatives. He believes that Dr. Hamilton has not in the least exaggerated their powers. Next to the alimentary canal the skin seems to be principal sufferer from the effects of salt food. Cutaneous affections and obstructed perspiration are very prevalent. From the diet and drink we need not wonder at finding a large proportion of nervous affections, as low nervous fevers, dyspepsia, hypochondriasis, asthma, &c. But the liver and stomach bear the chief onus of disease. Hepatic derangements are far more prevalent among the inhabitants of Dublin than of London or Edinburgh, owing, no doubt, to the ingurgitation of ardent spirits on an empty stomach. "The dissections at the various hospitals, says our author, exhibit greater derangement of this organ (the liver) than almost any other." He has seen it assume various forms of disordered structure, and he has always observed it to be the most prolific parent of disease. "Inflammations, indurations, adhesions, and tubercles are the general appearances it presents, and I believe it is rarely free from some one of these." In the stomach are found inflammation, thickening of the coats, induration, scirrhus, &c.

3. *Population.* On the 30th of October, 1821, a census of the population of Dublin was completed, and found to be 238,201 souls. This exuberant population, combined with the decline of trade and manufactures, the early and imprudent marriages of the Irish, &c. furnishes an abundant source of disease among the inferior classes. The effects of a dense population are particularly conspicuous during epidemics. In the crowded quarters of the city the atmosphere, both in and out of doors, becomes highly vitiated, ventilation is suppressed, the windows are hermetically sealed, and crowds of human beings are constantly exchanging the exhalations

of each others' lungs, and thus diffusing contagion in every shape and direction. The last subject touched upon by our author is—

4. *National Character.* Even this is by no means unconnected with health and disease. The following passage exhibits the bright or moral side of the Irish character among the lower orders of society.

"*Passion* seems to be the grand and presiding feature in the national character of these people: from this all its peculiarities emanate, and whatever it has of faults or beauties are here to be found; it is their constant guide, and regulates most of their actions. Their principle of *thinking* being so subordinate to that of *feeling*, and their principle of *feeling* being subject to such rapid changes and vicissitudes, we see about them that freedom, lightness, and carelessness, which makes them happy even in their miseries, because unmindful of them. Sorrow cannot rest upon them long at a time; their constitution is elastic, and soon shakes it off. There is a strong love of life about them, and a love of each other; and although distress and sufferings press in every shape around them, yet this love seems proportionally to increase in the strength of its instinct, and to cling more closely to them: that tedium vitæ, often so conspicuous among our neighbours, is here but rarely observed; suicide is almost unknown, and let their sufferings and privations be ever so crowded on each other, they rise superior to them, or bow with resignation. Universally good natured, careless, warm in heart, hospitable, grateful, and fond of each other; full of words, exaggerations and professions, they ever look at the bright side of life; hope is their companion, and seldom deserts them." 195.

But from this character, amiable as it is in many respects, spring great sources of suffering and degradation. They all hold the doctrine of fatalism, believing that their own exertions are of very little use, and that whatever happens is from inevitable destiny, to which they bow with placid resignation. Hence the total neglect and abandonment which marks every thing about them. Indolent, prodigal, and careless, they look not beyond the wants of to-day, contented if they can satisfy the common cravings of nature. Indolence and dirt, the result of this character of the lower Irish, are the principal agents in the production of their diseases.

"Under the head of want of cleanliness, with reference to individual health, we have chiefly to regard the condition of the skin. This acquires a complete coating, its exhalents are obstructed, perspiration is prevented and vitiated, and thus one great outlet for the discharge of impurities is closed; the proper healthy balance of circulation is destroyed, the internal organs are oppressed, and the whole machine deranged; thus we cannot wonder that cuta-

neous affections should form so large a proportion of disease with the Irish poor." 198.

Under these circumstances we cannot wonder at the rapid diffusion of contagion when once introduced or generated among such a dense population. Within doors every article of furniture and wearing apparel is disfigured with filth—every spot encrusted with its layers; and the foulest odours every where abound. Out of doors, especially in warm seasons, the church-yards, slaughter-houses, and masses of filth and offal in the narrow streets and lanes contribute no less to the propagation of contagion. In some of his visits among the narrow and crowded streets, Dr. Speer has been obliged to wade through masses of filth enough to sicken the stoutest heart—masses that must have remained there for months, perhaps for years, generating the most putrid effluvia! This far exceeds any thing we see in St. Giles's! and we hope the police of Dublin will soon remove such a disgrace and danger from the sister metropolis.

The study of medical topography, and of the public sources of health and disease, is a very important and useful study; and it was with the view of exciting our junior brethren to it that we have entered so largely into the paper just now concluded. Dr. Speer is entitled to the thanks of the profession, and of his fellow citizens in particular, for pointing out so many public and private nuisances, many of which are remediable or removable by proper interference.

IV.

Fatal Consequences resulting from slight Wounds received in Dissection. By A. Colles, M. D.

A year never passes, now-a-days, without proving fatal to several of our brethren in the above way. This used to be a comparatively rare occurrence, as dissection was pretty closely confined to the dissecting room; but now there is scarcely a general practitioner who is not in the habit of making pathological researches whenever opportunity occurs, which is often the case, owing to the decrease of prejudice among all classes of society.

It is somewhat curious that, of the three histories given by Dr. Colles, under the head of "fatal consequences," &c. two terminated favourably—which reminds us of the Hibernian's propensity to cry out that he is "*murdered*," when he is only knocked down. It must be confessed, however, that of the two gentlemen who recovered, one was almost in the grave, and the other appears to have had a very narrow escape.

The operation of the septic principle received during dissection, varies very much in different individuals, so that we do not think any thing like a history of the complaint can be given. In the two worst cases here narrated, there was considerable resemblance, not only to one another, but to the case of the late Dr. Pett, of Hackney. We shall first give a sketch of the cases themselves.

Case 1. Mr. Hutchinson, one of Dr. Colles' pupils, received a slight scratch while opening the body of a man who had died of cynanche laryngea. The cellular membrane on the external surface of the larynx and pharynx of the deceased contained that amber-coloured fluid resembling melted jelly, which is so often met with in such as have been carried off by this disease. The scratch on the thumb was very slight, yet the gentleman was that evening drowsy, and awoke next morning with head-ache, sickness of stomach, and acute pain in the shoulder and axilla of that side. On the third morning, the pain had increased to an extraordinary degree, and was still confined to the shoulder-joint, but without any discolouration of the integuments. There were no inflamed lymphatics on the arm, nor enlargement of the axillary glands. Yet he suffered exquisite pains about the clavicle and axilla, on the slightest pressure being used. The scratch on the finger at this time was quite free from inflammation, but the cuticle was raised in a small vesicle, partially filled with a white milky fluid. In this state he continued for three or four days, in agonising pain, violent fever, and great mental despondency. Fomentations, leeches, opiates, afforded no relief. At length, some mitigation of the pain took place, and a diffused erysipelatous redness spread along the thorax and abdomen, down near to the ilium, and ultimately to the trochanter. The skin had a doughy feel, and retained the impression of the finger. The fever continued unabated, and the strength was nearly exhausted, being only supported by large quantities of wine. Incisions were made over the fourth and fifth ribs, with the hope of finding some collection in the cellular membrane, but none was discovered. In a few days more, the inflammation ceased to extend, the cuticle began to desquamate, and the pain to diminish. At the end of three weeks from the accident, the pain had nearly subsided, and his general health was improving; but, in a day or two, pain and swelling appeared in the arm, and soon became almost insupportable. Some matter formed, and was discharged by an incision. The inflammation, also, re-appeared in the side, and ended in a small abscess. After this the patient rapidly recovered, and went into the country.

"From the commencement of the disease his spirits were sunk; he frequently raved; his pulse throughout was never less than 120, and sometimes it was 130. His stomach was, at the commencement, very irritable, and got better; but it again became alarmingly irritable about the beginning of January. This might have been partly caused by the large quantity of opium he used, for he could not procure any relief, except by a large dose, amounting to a drachm, or four scruples of the tincture daily." 207.

Case 2. The second case was that of Mr. Dease, the late lamented and estimable Professor of Anatomy and Surgery to the Royal College of Surgeons of Dublin. On Saturday, the 13th of February, 1819, he lectured on the cervical nerves, the subject being a female, not more than 48 hours dead. On Sunday morning early, he awoke with a violent shivering and sickness at stomach, which lasted two hours. At eleven o'clock, he earnestly besought Dr. Colles to bleed him for a pain in his left shoulder, which was most excruciating. Dr. C. declined bleeding him till three o'clock, when, urged again, he took away nearly twenty ounces of blood from his arm by a large orifice. He experienced partial relief at the beginning of the bleeding; but at nine, there was no essential mitigation of his sufferings. The fever was as high as ever. The blood was neither buffed nor cupped. Dr. C. now observed a slight fulness above the clavicle, and on pressing it with his thumb, the pain became exquisite. On Monday the 15th at eight o'clock in the morning, Dr. Colles visited Mr. Dease, and found that he had had a bad night, owing to the pain in the shoulder, on which he had now nearly one hundred leeches. In a consultation, some aperient medicine was ordered, which operated but little, and did not reduce a fulness of the abdomen, which was now conspicuous. 16th of February, the bowels had been more satisfactorily relieved, but, with little diminution of the general symptoms. He was advised to continue the use of purgatives. In the evening of this day a colourless swelling was discovered on the side of the thorax, and this, for the first time, led to the suspicion of a dissection wound, of which Mr. Dease had no recollection. Dr. Colles discovered on the dorsum of the thumb, the mark of a slight scratch which formed the diameter of a vesicle half filled with a milky fluid. The pain in the shoulder was now easier, and he could better bear pressure about the clavicle. Every evening, about six o'clock, he had an exacerbation of restlessness and depression of spirits. 17th. A bolus of calomel, with a liquid purgative draught. 18th. The medicine had operated well, and he slept four hours after taking the draught, awaking cheerful

and refreshed. To have an anodyne draught at bed time. 19th. Passed a bad night, and has some delirium this morning—face has a yellow tinge—countenance sharp—pulse small. The incision where he had been bled, was inflamed in the ordinary way, and there was a small vesicle on the fore-arm, two inches below the incision, containing a milky fluid. 20th. His manner was quick this morning, and bordering on delirium—pulse 126 and smaller—the entire side, from the axilla to the hip, swelled, and studded with small elevations, appearing like vesicles, but feeling hard to the touch. There was a strong erysipelatous blush occupying a small portion in the middle of the swelled side—tongue white; abdomen full. 21st. There appeared to be an abscess, but without distinct fluctuation, near the axilla; and there was a tumour on the anterior part of the right arm, which they agreed to puncture, though the patient was fast approaching to dissolution. A small quantity of serous fluid escaped, but did not reduce the swelling. He died at ten o'clock that night. There was no dissection of the body—nor indeed could it have been of any use.

The third case is only an outline. Mr. Egan had employed himself in dissecting the body on which Mr. Dease had lectured, and on the same day, viz. Saturday, 13th of February. On Sunday evening he had a rigor followed by a febrile paroxysm. On Monday, though not well, he went into company. On Tuesday he had a hoarseness, and inflammation attacked the thumb, with pain and erysipelatous redness around it, the pains passing up along the back of the fore-arm, attended with a smart degree of fever. On Friday he complained of tenderness under the border of the pectoral muscle, where an enlarged gland could be felt. His chest appeared to be seriously affected. On Sunday, the 28th of February, Dr. Colles saw him—fever running very high—pulmonary affection and distress very great. The abscess near the axilla was now opened and discharged some purulent matter, the cavity proving to be extensive, passing across the pectoral to the latissimus dorsi muscle. He gradually recovered.*

---

* We copy the following account of Dr. Pett's case from our respected contemporary, the Medical and Physical Journal for February of the present year, as communicated by Mr. Travers.

"At eight o'clock on the morning of Saturday, the 28th of December, Dr. Pett assisted a medical friend in examining the body of a lady who died of peritoneal inflammation after child-birth, on the Thursday preceding. At nine o'clock the same evening, being in his usual health and spirits, and while engaged at cards, he complained of an uneasiness in the middle finger of his right hand. On minute examination, a slight wound was discovered.

Dr. Colles has made some reflections on these cases, which he thinks present us "with the character of a disease both formidable and new."

"The severe pain felt on the point of the shoulder; the peculiar colourless swelling, or fulness above the clavicle, within a few hours after the infliction of the wound; the wound itself at this time free from inflammation or pain; no red streaks, no pain, nor even tenderness on pressure through the whole course of the limb. In short, no trace at the time of any morbid connexion between the wound and the seat of the pain, were the most remarkable features of this disease." 217.

It was then touched with lunar caustic, and some time afterward with a drop of strong sulphuric acid, neither of which applications was felt. On going to rest, he again applied the lunar caustic to the wound for the space of half a minute, which application was followed by pain, soon increasing to intensity; and, an hour after he had been in bed, he was attacked by a severe rigor, which continued more or less for three hours. The pain spread from the finger along the arm to the axilla, and was so agonizing as to lead him to observe, that he had never before known what pain was. The night he described as one of dreadful suffering, without intermission. In the morning, the expression of his countenance, and the altered manner of the man, struck his medical friend with instant alarm. The finger was white, and without sensation.

"At twelve o'clock on Sunday, an incision was carried through the wound to the bone, which was not felt by Dr. Pett. In the course of this day, the arm became swollen, and the superficial absorbents conspicuous from inflammation. The pain affecting the arm extended to the axilla and pectoral region. The finger in a few hours became discoloured and gangrenous as far as the second joint, where suppuration of the soft parts afterward took place. The high excitement of the nervous system, marked by a flushed countenance, a ferrety eye, vigilance, great anxiety, short and quick respiration, rapid and voluble speech, and unnaturally irritable manner, were accompanied by a very moderate acceleration of the pulse, which soon became intermittent, and then irregular.

"On the morning of Tuesday, the arm had recovered its natural appearance; it was neither swollen nor painful, nor were any absorbent lines visible. A considerable effusion had taken place in the cellular substance of the axilla, and over the pectoral muscle: it was marked by an erythematous blush, was painful, and crepitated on pressure as in emphysema. The symptoms varied but little; but increased difficulty and hurry of respiration, and increased feebleness, were marked at each visit. He expressed a sense of confusion; but there was no further evidence of disturbed intellect than the deviation before adverted to from his natural characteristic calmness. The fulness at the axillary edge of the pectoral muscle being sensibly increased on the Wednesday morning, a lancet was pushed deeply into it, but only a bloody serum issued.

"On the Wednesday evening, about six o'clock, he died, having survived the injury about 105 hours. The body was inspected on Friday, and no recent morbid appearance whatever was discovered in the chest or abdomen. The heart was unusually large, and its substance flabby. The internal structure of the liver had undergone considerable chronic degeneration. The head was not examined." 177.

Another remarkable phenomenon was the peculiar appearance of the pustules, (unlike to any he had ever witnessed) particularly the pustule on the fore-arm of Mr. Dease, which could not have been from the wound made by the lancet, as this pustule was *below* the incision, the intervening skin between it and the pustule being natural. The resemblance of these elevations to vesications, while to the touch they felt solid, was another peculiarity. Our author cannot agree that the swelling on the side of the chest, in these cases, was of an erysipelatous nature, as the redness was of a bright healthy colour, and did not occupy more than a sixth part of the swelling.

Dr. C. observes that, however we may dispose of the disease, in a nosological way, it is obvious that neither habits of dissection the most lengthened, nor a state of dead body the most free from putrefaction, can secure the anatomist from the danger of this formidable disease. Mr. Dease had been in the habit of dissection for more than twenty years. In Dr. Colles's recollection he found most of the instances of inflammation and fever following wounds received in dissection, among those pupils who had arrived at the third season of their anatomical pursuits. We are disposed to think Dr. Colles is not correct in supposing that it is a generally received opinion among the profession, " that the danger from wounds in dissection is in proportion to the putrefaction of the subject, or to the contagious nature of the disease which had caused death." The best informed anatomists of this country do not entertain such an opinion, their experience coinciding with that of our author as expressed in the following passage.

> " On the contrary, according to my observation, unpleasant consequences have been so rare, where the subject was far advanced in putrefaction, as to induce me to think that putrefaction rather gives protection to the anatomist; nor could I trace any connexion between the disorder in question, and the contagious nature of the disease which had destroyed the subject of dissection, and surely during the winters of 1818-9, when fever raged so extensively in Dublin, we should have had some striking instances of such a connexion had it existed. Perhaps the majority of the affections in question have occurred in cases of examination of bodies to ascertain the cause of death, and where the body had not even been interred." 219.

Dr. Colles has never witnessed any of those dangerous constitutional affections which are mentioned by some authors, as attending the dissection of bodies in a state of putrefaction. In respect to the question whether we are to attribute these ac-

cidents to a poison or septic principle inoculated, or merely to the puncture itself, in a peculiar state of the constitution—we would be disposed to answer, in the absence of demonstrable proof, that there is great reason to suppose some poisonous matter introduced—the effects of this being modified by the state of the constitution at the time. The consequences of mere punctures by common instruments, in the various avocations of life, are very trivial, and, when they do become serious, are of a very different class from those following dissection wounds. We allude to the tetanic affections occasionally following slight wounds, especially in tropical climates.

As our author cannot offer any thing consolatory in the way of treatment, it is the more incumbent on anatomists, he reasonably thinks, to attend to the means of prevention.

"The advantages of the immediate application to such wounds of caustics in a solid or liquid form, is too obvious to require any comment; they are the only means upon which we can rely with absolute certainty.

"But those who are acquainted with the zeal of anatomists must doubt whether any practice which interferes with the prosecution of their pursuits will be generally adopted; the pain and the delay which must be occasioned by applying caustic to every little scratch, will prevent this plan from being as generally followed as it should be, or as the safety of individuals require.

"I would therefore recommend that each dissecting table be furnished with a cup of oleum terebinthinæ, into which the anatomist should plunge his finger the moment it is wounded. The smart which this produces is so inconsiderable, that it will not cause any serious delay, while the irritation may counteract the power of infection, or alter the mode of inflammation in the wound." 222.

We may be permitted to remark that, for many years past, the precept and example of Professor Chaussier have been adopted in the anatomical schools of Paris. Each student keeps in his pocket a small phial of the liquid butter of antimomy (muriate of antimony) and whenever he wounds himself, in dissection, plunges the point of a little wooden pencil into the caustic, and quickly cauterizes the puncture or wound. We, ourselves, would recommend the strong nitric acid, where the wound is tortuous, or made with a sharp pointed instrument, as this liquid immediately penetrates every part of the puncture, and completely disorganizes its parietes, thereby rendering them incapable of taking up any part of the septic principle. When, unfortunately, the poison has taken effect, we know of no *specific* means of checking its progress, and therefore we are obliged to combat the symptoms on general principles, for which no rule can be laid

down. When we reflect that the inflammation produced by these punctures is of a specific kind, and attended with a peculiar constitutional derangement, we much doubt the propriety of that active system of depletion which is so effectual in common phlogosis and acute inflammatory diseases.

We shall review the other papers contained in this volume in our next number.

V.

Practical Observations on the Treatment and Cure of several Varieties of Pulmonary Consumption; and on the Effects of the Vapour of Boiling Tar in that Disease. By Sir Alexander Crichton, M. D. F. R. S. &c. &c. 8vo. London, December, 1822.

There is but too much reason to believe that the mode of applying the vapour of tar in pulmonary consumption, as recommended by our respectable countryman, Sir A Crichton, has been completely mistaken in this kingdom, and consequently that the remedy has had no fair trial. On the contrary, we have no doubt that it has been productive of injury, as we shall show a little farther on. On this account, and because the work before us contains some judicious observations on pulmonary consumption, independently of the remedy in question, we shall take a somewhat more comprehensive review of the publication than we otherwise should have been inclined to do, hoping that we shall not quite uselessly take up our readers' or our own time in the operation. The analysis of Sir Alexander's work is rendered very difficult by the want of arrangement and method which very generally pervade his chapters, which are composed in a desultory manner and loose style that we did not expect from an author who is well known to be capable of a very different kind of composition if he pleased.

In the year 1816, our author, while in Russia, made some experiments with the vapour of boiling tar in cases of consumption, and the succeeding year published an account of them in England, through the medium of a small pamphlet. Since that period he has employed the same means in private practice with success, "but not in the same degree as in the hospital for the poor in Russia." It is principally with the view of explaining the cause of this difference between the

results of public and private practice that the present publication has been laid before his professional brethren.

After remarking, in his preface, on the incongruity of writers on pulmonary consumption, he considers it a well ascertained fact that the disease in question "cannot be cured by medicines which act through the medium of the stomach."

"It seems," says he, "a strange hope, and strange conduct, to pretend to cure an ulcer in the lungs, whether scrophulous, phlegmonous, or of whatever kind it be, by internal remedies alone, while it is acknowledged that ulcers on other parts of the body *require* a local application, independently of all internal treatment." xv.

We have put the word "*require*" in italics, because we are surprised that our author should suppose external application absolutely *requisite* for the healing of external ulcers. On the contrary, we verily believe that these applications have very little other effect than to exclude the air and other irritating matters, and that the healing process is entirely the work of Nature, far more promoted by internal than external means. The analogy, therefore, between an ulcer on the leg and an ulcer in the lungs, if it holds good at all, will be directly against his principle of external applications.

We are ready to grant that there are well authenticated instances on record of pulmonary ulcers healing; but we are not equally ready to accord that—

"Almost all the gasses and volatilized substances which have been breathed by consumptive patients, oxigen gas and the nitrous oxide excepted, can boast of more cases of extraordinary cure than have been effected by any medicine taken into the stomach."—*Pref.* xviii.

It is true they may "*boast*;" but are these boasts performed? We believe, with Sir Alexander, that tar vapour has been injudiciously applied in England, from imperfect acquaintance with his views and principles. For instance, when Dr. Lazaretto's pamphlet was published a few years ago, the pitch-house in Portsmouth Dock-yard, where great cauldrons of tar were boiling, were daily crowded with patients labouring under pulmonary consumption, in every stage; as many as possible standing almost over these cauldrons, and all getting as close as possible to the supposed panacea. Numbers of them were forced, every minute, to run out into the cold air, and there cough and expectorate till they were red in the face, and until blood frequently appeared in the sputa. They then returned to their lodgings, many of them scarcely able to crawl, but all of them assuring the doctor how much they were bettered by this process! Many were the reports of surprising cures; but not a single

such case did we see, although we were on the spot, and several of our own patients resorted, as long as they were able, to Medea's cauldrons in the dock-yard. We do not, in fact, believe that a single case of pulmonary consumption was cured, though not less than some thousands made the experiment. The concourse, at length, from all parts of the surrounding country, and even from a great distance, was so great, that the gates were shut—hundreds were cruelly disappointed—private lodgings were taken, and tar-pots smoked for a few months, when the bubble burst, and the fame of the doctor, as well as the fume of the tar "vanished into air—thin air." Under such circumstance, we think, Sir Alexander Crichton has little reason to complain that his name was not coupled with the discovery; on the contrary, he may be really thankful, "as it absolves him (as he says, in another place, in mentioning the mode recommended in the Journal of Science,) from the charge of having advised so hurtful a mode of applying the remedy." It is but justice to our author to state, that the mode in which he administers the vapour is very different from those mentioned above; and also that he specifically informs his readers that the vapour of boiling tar is to be considered only as an auxiliary to the general treatment which the varieties of the disorder, and the various constitutions of individuals require.

In the first chapter of the work, our author appeals to his brethren respecting the *possibility* of curing some of the worst varieties of pulmonary consumption. The dissections of Laennec are adduced as proofs that tubercles have broken down, discharged their contents by expectoration, the cysts from which the discharge came having healed by a kind of cicatrization.* These facts, and the histories of cases which have fallen under our author's notice, or been recorded by others, authorize, he thinks, the hope that something may yet be done to lessen the fatality of pulmonary consumption. The following statement, however, will show that the tar vapour is not likely to be extensively tried in this country with advantage, under present circumstances.

"No fair trial of its virtues can be made indeed in this country, in any of its establishments or houses, as at present constructed; a circumstance, of the importance of which I was not fully aware, when I published an account of the first trials made with this remedy; for having been accustomed, during a residence of sixteen years in Russia, to the uniform temperature of the houses and hospitals of

* See the 7th number of our *Quarterly Series*, for January 1820, p. 467 et seq. Also, Forbes' Translation of Laennec, p. 25.

that country, I was not sufficiently aware how much this circumstance favoured the operation of all other means employed for the recovery of the consumptive."* P. 7.

Sir Alexander is convinced, however, that temperature alone is incapable of effecting a cure, when the disease is fairly formed, as is proved, he thinks, by the cases treated in 1816, where the patients had all the advantages of uniform temperature, and were daily getting worse, until they were made to breathe an air charged with the vapour of heated tar.

Where the substance of the lungs is much disorganized by the presence of a great number of tubercles, whether dormant or in a state of progression, our author acknowledges that no man in his senses can flatter himself with the hope of a cure. Nevertheless, experience has proved that life may continue after a very considerable portion of lung has ceased to perform its function; and, therefore, the hope of recovery is not absolutely abolished in such cases. The following is the supposed modus agendi of tar vapour.

"The vapour of boiling tar seems to act in different ways on tubercular and ulcerated lungs: first, as a stimulus both to the arterial and absorbent system of the diseased parts, *hastening the softening or resolution of tubercles*, and the generation of new matter; the remedy coming into immediate contact with the diseased parts: and secondly, by diminishing the quantity of oxygen in any given mass of air, not by any chymical union with it, although this remains to be proved, but, as I suspect, merely by diluting the atmospheric air with a vapour which contains little or no oxygen, and is almost entirely composed of carbon and hydrogen, and thereby lessening the quantity of that æriform fluid which seems to augment the suppurative process of all sores." 14.

Pathologists will differ as well as *doctors* sometimes. Our readers will remember that Dr. Baron, who has paid no mean degree of attention to the subject under consideration, founds one of his greatest hopes of cure on the *hardening of the tubercles*, and their *thus* lying in a dormant state through life. Sir Alexander seems to think that the tar vapour *softens* tubercles, and promotes the *generation of new matter*.

Our author informs us that the success of the tar vapour has been quite remarkable in some cases, while in others,

* As it may be in the power of many opulent individuals to command the means of regulating the temperature of their apartments, and thus availing themselves of the tar fumigation, we still deem it our duty to lay before the profession an analysis of the work before us, notwithstanding the above drawback on our prospects.

apparently similar, it did no good—in others still it evidently provoked hæmoptoe.

"In almost all cases where the tar has been duly prepared, its first effects in relieving the dyspnœa, cough, and pains in the chest, and in diminishing the expectoration, have been remarkable. These effects, on such patients, as from the state of the lungs were curable, were soon followed by a progressive and general amendment until a complete cure was produced. But others, who at first were much benefitted by the application, began some time after to struggle, as it were, between the good effects of the medicine, and the destructive process of the disease, and from the number and volume of the tubercles, they at last resisted its action altogether." 15.

That tubercles occasionally become absorbed, our author thinks is sufficiently probable from some cases on record, and among others, Dr. Young's case. The vapour of tar, he observes, if long continued, of moderate force, and uniform temperature, has seemed to him to produce this happy change. Hence, he recommends it to be tried in the dry or tubercular consumption anterior to purulent expectoration—but with this caution, for fear of hæmoptoe, "that the air of the apartment be charged with a due degree of humidity as well as of the vapour of tar."

"The most destructive variety of consumption, and one of the most frequent, is that arising from the rapid succession of *inflammation and suppuration of many clusters of tubercles*. It is distinguished by the frequency of the cough, a rapid decay of strength, pains in the chest, and a constantly quick pulse, which is generally wiry and hard, until the weakness becomes general.

"To the well informed part of the medical profession it would be superfluous to attempt a picture of the morbid appearances of the lungs in the various stages of this disease, after what has been already written on the subject by Messieurs Bayle and Laennec. But, in a practical point of view, all that is necessary to state is, that as long as a quick and rather hard pulse accompanies the other usual symptoms of tubercular phthisis, it may be relied on that a scrophulous inflammation of an extensive and disorganizing kind is rapidly going forward, and in such cases the vapour of tar, although it now and then relieves the frequency of the cough, produces only a temporary amendment, but cannot cure the disease until the scrophulous action is arrested, which, in such cases, is almost hopeless in the greater number of similar cases." 21.

Our author also remarks, that, "as by far the greater number of consumptive cases which occur in Great Britain are of this acute and destructive kind, the vapour of tar, should it have been solely trusted to, must have failed; for such cases, even when a little hope is to be entertained, demand the co-operation of internal remedies."

Now we humbly conceive that, if we can, by internal remedies, check this scrophulous "inflammation and suppuration of many clusters of tubercles," the patient will be saved without tar vapour—that is, that the remedies which can effect such important objects as the above, will do the remainder of the work better than the stimulus* of tar vapour, on parts but too much disposed already to inflammatory action.

The quick and hard pulse, with strongly marked hectic fever, which accompanies all the varieties of pulmonary consumption arising from extensive tubercular inflammation, are infinitely less frequent, our author observes, among the poorer inhabitants of Russia than of Great Britain or France; and hence, together with the construction of their habitations, the greater success attending the administration of tar vapour in the former class of patients.

Dr. Neuman, physician to the Charité at Berlin, assured our author that he had succeeded in completely curing, by means of tar vapour, that dangerous disease known by the name of laryngeal phthisis. In the autumn before last, Dr. N. showed our author a case of this kind, which was gradually recovering by means of the tar vapour. We should indeed have more expectations from the remedy in laryngeal, tracheal, and bronchial ulcerations, than in real tubercular consumption, and for a reason which, we think, has escaped Sir Alexander. We firmly believe, that atmospheric air rarely, if ever, enters the cavity of a broken-down, or, as it is commonly called, suppurated tubercle. During the intervals of coughing, or at least of expectoration, the cavity is gradually accumulating muco-purulent matter, which, of course, excludes the atmospheric air; and when a fit of coughing and expuition takes place, so as more or less to clear the excavation of its morbid contents, the parietes of that excavation are in contact, or nearly so, (for they are never completely emptied of their contents,) till they become gradually distended with the muco-purulent secretion, and again excite the paroxysm of coughing and expectoration. We imagine that every physiologist who reflects on the mechanism of the lungs and the phenomena of expectoration and consumption, will agree with us in this view of the case. No man, we think, can coolly believe that a tubercular cavity, whose parietes are in a secreting state, are dilated with air at each inspiration, and collapsed at each expiration. The idea is quite

* In an extract which we quoted, our author considers the tar vapour "a stimulus both to the arterial and absorbent system."

preposterous. And if we are right in our exposition of the case, tar vapour can rarely, if ever, permeate the cavity (as it is erroneously called, for there is no real cavity*) of a suppurated tubercle, and consequently, whatever effect it may produce, must be accounted for on other principles than those attending applications to external ulcers.

Our author observes that the tar vapour has been successful in bronchial phthisis, and we think it very probable—especially in Russia, where a uniformity of temperature is easily commanded in the apartment of the sick. The reason why it has not been so efficacious in this country, may, as our author states, be much owing to the want of power in regulating the temperature of our houses in England. Our author properly observes that the inhalation of vapour from a gazometer or bag must be injurious in consumptive cases, not only on account of the exertion required by the chest, but of the too stimulating quality of the inhaled vapour. Whatever this latter may be, it is important that the whole chamber should be equally impregnated therewith, in order that the patient may breathe without any greater exertion than usual. In fact, our author considers it desirable that the consumptive person should take in as little air as possible into his lungs, and, consequently, that there should be as little motion as possible in the respiratory apparatus.

The places where the good effects of tar vapour become most conspicuous, are the cable-lofts in the neighbourhood of pitch-houses, when great quantities of tar are boiled, and impregnate the air to a considerable distance around. But our author *distinctly states that it is not in the chamber (of the manufactors) where the tar is boiled, but at a considerable distance from it in the building, that a consumptive patient can breathe the air with safety.* This at once shows that the trials to which we alluded at Portsmouth must have done more harm than good.

"The object is to find a place where the atmosphere is highly charged with the vapour of tar alone, the pyroligneous acid having been dissipated before the vapour reaches the spot alluded to. This acid has a very sensible effect on the eyes, and this circumstance is a good practical criterion for judging of its presence. The common tests for discovering the presence of an acid are no tests whatever in this case, because they are quickly reddened by the carbonic acid gas, which abounds in such manufactories, and which does no harm." 29.

* The cavity of a discharging tubercle may be compared to the cavity of the abdomen in a dropsical patient, who is in the habit of being tapped. It alternately fills and is emptied, but there never is any cavity, properly speaking, in either state.

In the manufactories alluded to, the patient should remain, weather permitting, as long as he can bear it, viz. until giddiness or violent headache forces him to retire; and if he is fortunately in the vicinity of such an establishment, he ought to repeat this visit several times a day.

"The success of the cure depends very much on the impregnation of the air with the finer and more permanently volatile parts of the tar, an advantage which it is scarcely possible to procure by the boiling of small quantities of tar over a lamp or charcoal furnace in the apartments of the sick, except this be done with great skill, attention, and patience. But, if the sending consumptive patients twice or thrice a day to some manufactory where tar is boiled in great quantities be advantageous, it is only so in mild weather; for the pernicious effects of a cold or windy day, to which the patient must occasionally be exposed who seeks the remedy out of his dwelling, will do more injury than can be counterbalanced by the pitch-house; and this forms another reason why establishments ought to be erected in various parts of Great Britain for this unfortunate class of sufferers, provided the trials which are first made in this manner afford a prospect of their utility; and it may be added, that if ever there was an interesting, useful, and praiseworthy object of experiment and of humanity, it would be the establishing houses for such trials in this country, where so much domestic misery arises from the prevalence of the disease." 31.

That a large or expensive establishment, however, is not always or essentially necessary, our author relates successful cases where the tar fumigation was made by keeping about a quart of tar in a state of slow ebullition, over a spirit lamp, in one corner of the patient's room.

But although our author saw many cases where patients recovered in an atmosphere constantly charged with the vapour of boiling tar, he by no means recommends the trusting to this method, in preference to the interrupted and repeated action of an atmosphere more highly charged. Sometimes the one and sometimes the other method will agree best.

The second chapter of the work before us is on the influence of temperature and climate in preventing and curing consumption. Sir Alexander regrets that patients are still sent to Nice, Italy, France, Naples, and Madeira, "all which places are destructive to these unfortunate people." Surely this is an unguarded and unqualified expression. That patients are sometimes sent to these places at improper periods of their complaints, and at unseasonable times of the year, there can be no doubt; but this affords no proof surely that a judicious and timely removal to a milder climate is "destructive" to those who go under such restrictions.

Consumption is infinitely more prevalent in Great Britain

than in the northern parts of Russia, although the climate of the latter is far colder and ruder than ours. In the *northern and middle* governments of Russia, however, the scrophulous constitution is more common than in England, and commits greater ravages and disfigurations than are ever seen here. In that country the disease is principally confined to the external glands, especially to the face, eyes, throat, and bones. The lungs rarely suffer, except in public schools, and among those who adopt the European dress and fashions.

The chief food of the Russian peasant is a black sourish rye bread, (less nutritive than that of wheat,) and a very weak cabbage soup. Almost all his drink is acidulated and fermented. During his long religious fasts he is obliged to eat black bread, bad hemp-oil, and vegetables, to the total exclusion of every article of diet derived from animals, whether flesh or fish. Even milk is strictly prohibited. It must be confessed that this does not seem to be a diet calculated to either prevent or cure a scrophulous diathesis—but, at the same time, it must deprive the lungs of all tendency to inflammatory condition. The peasantry are warmly clothed, except during the excessive heats of their short summers—their huts being insupportably hot during winter, spring, and autumn, in comparison with our houses. High and frequent winds, a fruitful source of catarrhal affections in this country, are very rare in the northern parts of Russia; and when they do occur, every Russian who has it in his power shuts himself up.

"And as the peasantry of both sexes are clothed in sheep skins, with the fur turned inwards, they are not quickly robbed of their atmosphere of heat on leaving their huts, and consequently can bear almost any transition of temperature with impunity. The lungs alone are exposed to the cold; but the great mass of blood is not thrown on these viscera by sudden exposure to it, as it is in this country; and the circulation being kept up freely on the surface of the body, and in the extremities, no injury arises." 52.

The higher classes, however, who are now well inured to the tyranny of European dress and manners, are daily becoming more and more subject to phthisis. What has been said of the Russian peasantry appears to apply to those of Sweden and Lapland, where, according to authentic travellers, the disease in question is very rare.

"These facts, if well considered, lead to this conclusion; that the best preservative against pulmonary complaints is warmth, and an equal, or at least an uniform mild temperature, so as to keep the balance of blood constantly on the surface."

Our author observes that the more *steady* climates, of France,

Spain, and Italy, must be the chief cause why consumption is less common in those countries than in Great Britain.

"None of these countries are altogether free from vicissitudes of temperature, and those to which consumptive patients are commonly sent from this country are exposed, during hot seasons, to sudden cold and cutting winds, from the glaciers and high mountains in their neighbourhood, which alternating with siroccos and hot winds, soon cut short the days of a consumptive patient. The whole of Dauphine, almost the whole of the South of France, the North of Italy, and indeed all places which are under the influence of cold winds from the Alps, Appenines, or Pyrenees, are subject to phthisis, and destructive to foreigners labouring under that complaint, or who are disposed to it from diseased and weak lungs." 54.

Sir Alexander asserts that the sea-coast, whatever may be the locality, is highly injurious to phthisical patients, provided there be any breach of continuity in the pulmonary apparatus. Where the ulceration is not present, these maritime situations are allowed to be salutary. But our author shows no good physiological or pathological reason for this injurious influence in one case, and beneficial to the other; and as a matter of mere experience, he shows no proof at all. Neither is our author's statement consistent with the very next passage in sequence.

"Some places on the coasts of Devonshire and Cornwall, such as Penzance, have been long considered as favourable to the recovery of the consumptive. If the fact be well founded, which I am much inclined to believe it is, the reason is to be sought for in the steady, mild, and perhaps humid state of the atmosphere of these favoured spots, but most assuredly not in any specific virtue of the sea air." 57.

No man of sense or reflection now entertains any idea of a "*specific virtue*" in the air of particular places; and, therefore, Sir Alexander here combats a mere man of straw set up by himself. Madeira is considered improper for those in whom phthisis is fully formed—but salubrious for those in whom the disposition only exists, or the tubercles are merely nascent. Very hot climates, he observes, are "quite free" from consumption, "such, for instance, as Persia, and *many parts of Calcutta.*" We have traversed over and over every nook and corner of the last-mentioned city, without ever hearing of these favoured spots. Although phthisis is comparatively rare in the hotter climates of the earth, there is no such exemption, we believe, in any of them, as our author points out.

Sir Alexander does not believe that marshy countries pos-

sess any anti-phthisical properties, unless they are much sheltered from cold winds:—

"And provided the air of such places be loaded with moisture alone, or only with a little carburated hydrogen, I can imagine that they may be favourable to the consumptive. The effluvia and volatilized substances, arising from the decomposition of animal matters, is always useful to people of weak lungs, and to the consumptive. Cat-gut-makers, who live in a putrid atmosphere, and butchers, are of all tradesmen those who are the least frequently affected with this disease." 59.

Our author's observations on the effects of sea voyages in consumption, correspond with our own. Where tubercles are discharging, a voyage to a hot climate generally accelerates the progress of the disease. But the mild and comparatively equable temperature of the ocean is beneficial for those in whom there is but a tendency to phthisis or hæmoptysis. In chronic bronchitis, even where there is actual secretion of muco-purulent matter, the atmosphere of the ocean is also salutary for the reasons above-mentioned—namely, its *stability and mildness.* The chapter concludes thus:—

"The view which has been taken of the influence of climate and temperature, shows on the one hand how very little is to be expected from either topical applications to the ulcerated lungs of consumptive patients in Great Britain, or from internal remedies, if some plan be not adopted to shelter the patient, during his recovery, from the frequent vicissitudes of temperature to which we are subject; and, on the other hand, the cases brought forward justify the hope, that with the advantages of an artificial and equal temperature, and due regard to diet, exercise, and internal means, the efficacy of the vapour of boiling tar on ulcerated lungs, might rescue many lives which must otherwise be lost." 68.

The third chapter of the work is on tubercular consumption, its prevention and treatment. There is nothing new or original in the pathological part of this chapter. Our author quotes good authorities, however, as Baillie, Bayle, and Laennec. He has omitted Dr. Baron, whose work on tuberculated accretions he would have done well to peruse. Neither do we see much new or original matter in the hygiene contained in this chapter. Our author's observations are very generally correct, and his advice proper; but to us it seems more intended for the patient than for the physician. On this account we shall take but a very cursory view of the chapter.

Our author divides those who are unfortunately born with "a strong hereditary disposition to scrofula" into two classes —one, where the child is fair and well proportioned, until

it begins to be weakened by growth, and by those debilitating causes which spring equally from wealth and indigence—the other, where the child is born with a delicate frame, and is soon observed to have a flat and compressed chest, transparent skin, long neck, and other well known indications of weakness, which, with hereditary taint, mark them out as easy victims to pulmonary consumption. Although the first class may have a well-formed skeleton, plenty of flesh and blood, and a healthy colour, they may yet have a tendency to vascular derangement in one or more parts of their system, disposing them to glandular or membranous inflammation. Still these subjects seldom fall into actual phthisis, unless the external causes be in considerable force, with neglect on the part of themselves or others.

Our author descants on the improper conduct of some parents in attempting to harden their offspring by early inuring, or rather exposing them to cold, and the natural inclemencies of the climate. We confess that we can only see the impropriety of this measure when it is carried to extremes. We know not how the human frame can be rendered capable of sustaining the rapid and frequent changes of our atmosphere but *by early and gradual exposure* to those changes. We would not indeed begin by plunging a tender infant into water half-frozen; but we would caution mothers against bringing up their children like hot-house plants, that cannot bear the breath of heaven without shrinking from the exposure. We would recommend *moderately* warm clothing and plenty of exercise in the open air, with the cold bath in summer, as the surest means of hardening the constitution. Our author properly recommends that a scrophulous child should be in the open air several times a day, and that he should have wholesome animal food, unless when labouring under some actual disease. Sir Alexander has also given some judicious instructions respecting the exhibition of mercurial alteratives in scrophulous diseases. About the age of puberty the scrophulous diathesis too often assumes the form of tubercular phthisis, and therefore it is important to watch the first movements that indicate danger to the lungs.

"Where a little dyspnœa and slight frequent cough have already commenced, an uniformly mild temperature, breathing an atmosphere charged with the vapour of heated tar, as a topical stimulant to the absorbents of the lungs, sponging the chest frequently with tepid vinegar and brandy, in an apartment sufficiently warm to prevent the catching cold, rubefacients, the tartar emetic ointment, a mild yet nutritious diet, and keeping the bowels gently open, are the best remedies." 86.

The circumstances indicative of the formation of tubercles

in the lungs, our author observes, are the rapid emaciation and loss of strength, although a sufficient quantity of food is daily taken in—a frequent dry cough—occasional dyspnœa on taking exercise—flying pains in the chest—or a fixed and moderate pain in either or both sides—a peculiar shrinking of the features, and delicacy of look.

Sir Alexander maintains that there are two distinct classes of tubercular consumption—one of slow and insidious progress, accompanied by all the decided marks of phthisis, except a quick pulse, and daily symptomatic fever—the other characterized by hectic fever, with daily exacerbations. "These are not stages of one and the same disease;" but dependent on the constitution of the patient, and the state of the lungs. The first, which he thinks may be called the chronic kind, though ultimately accompanied by hectic fever, may yet run a course of one, two, or even several years, before the hectic fever occurs. Whereas the acute kind is accompanied with quick pulse, and daily exacerbations of fever from almost the beginning of the complaint, running, in comparison with the other, a very rapid course.

"In the chronic kind, the formation of fresh tubercles goes on slowly, and the enlargement of each tubercular mass, and its progress in softening, is also slow and unaccompanied by inflammation. When one bag of softened tubercular matter has been evacuated by coughing, the patient apparently recovers a little, the frequency of the cough is sensibly diminished, and there is a general improvement in his health for a short time; he has a kind of fallacious respite, which is often attributed to the operation of medicine, which, if judiciously applied, certainly does assist Nature in her operations. In a certain lapse of days, weeks, or even months, the dyspnœa increases, the patient has bad nights, his strength fails, and at last there is a fresh attack of cough, with the mixed expectoration peculiar to tubercular consumption. Of those who recover, I have known some who have struggled in this manner, for nearly a year before they could be said to be in a state of uniform convalescence, and consequently before the greater number of tubercular masses were resolved. In women, the non-appearance of the catamenia, which is always a concomitant of an advanced phthisis does not occur in this chronic kind until the last periods of emaciation, whereas, in the acute kind, it generally occurs soon, the *rationale* of which is too evident to require explanation." 89.

Although the prognosis is here unfavourable, our author thinks that a tenth part of those attacked might be saved, if the disease were taken in time.

"People labouring under this variety of consumption, as well indeed as all others who suffer from the other varieties of the disease, ought to be confined rigidly to the house during winter, and almost equally so during summer, except the weather be very calm and warm;

in which case I allow them to take as much exercise as their strength permits, twice or even thrice a day. The apartment is always kept charged with the vapour of tar, duly prepared, sometimes more strongly charged than at others, while the dryness of the air is obviated as much as possible. All tea and coffee and acid drinks are forbidden.

"If the patient has sufficient appetite to relish good soup of beef or mutton for breakfast, I prefer this to every thing else; if not, he has cocoa, milk, or chocolate, according to the state of his stomach, and according to the facility with which he digests them.

"If he have a craving for food, or much appetite, calf's-foot jelly is permitted between breakfast and dinner, as often as the patient wishes for it. At dinner he has any variety of animal food which agrees with him, but he must confine himself to one kind each day. He is allowed no *entremets*. He has, in fact, soup and bouillie, or soup and some roasted or broiled meat in moderate quantity." 91.

The medicines which our author has found most effectual in promoting the resolution and discharge of the tubercular matter, have been a combination of the compound galbanum pill with the sulphurated oxide of antimony, or the pulvis antimonialis—now and then calomel or cinnabar, and always some extract of hemlock and a little opium. We agree with our author "that very many compound medicines answer better than simple prescriptions."

"To those who think that the science of medicine is improved by an affected simplicity in prescribing, I would remark, that modern pharmacopœias are shorn so much of old and approved receipts, on account of their being extraordinary compounds, as to be almost quite useless in some cases." 92.

Along with the above-mentioned pills, our author gives the Iceland moss and sarsaparilla, particular symptoms being obviated by appropriate remedies.

The inflammatory species of consumption above alluded to, must be treated in a different manner—namely by "remedies which experience has pointed out as the most efficacious in allaying febrile action, the scrophulous affection and the frequency of the cough naturally modifying the prescription."

"These remedies, considered under a general point of view, are such as act on the skin, and consequently tend to unload the lungs of the habitual congestion, to which their weakness, and the irritation arising from tubercles, give birth; and, secondly, mild stimuli, the action of which is directed to the lungs; and, thirdly, mild general tonics. In one word, the cure must be anti febrile, and anti-scrophulous, and not merely anti-catarrhal, as it is but too often attempted to be." 100.

Antimony, digitalis, cicuta, and the red sulphuret of quick-

silver, are the principal remedies to which our author trusts for allaying febrile action; to which must be added, as external counter-irritants, blisters, tartar emetic ointment, gestation. Finally, regulated temperature and the tar vapour, when inflammatory symptoms have subsided. Griffith's mixture our author condemns; but "the watery extract of myrrh is an excellent tonic." The Iceland moss is also recommended. Of milk and other diatetic articles we need not here speak.

The 4th chapter (which our author has marked the 3d) is on pulmonary consumption from hæmoptysis. The pathology is almost entirely taken from Laennec, and although there is some peculiarities in the therapeutics of our author, we do not deem them of much importance. However, as he seems to be of a different opinion, we shall state his practice in a very few words, leaving our readers to form their own opinions.

He condemns the application of cold water to the face, temples, hands, &c. of a patient labouring under hæmorrhage from the lungs. He advises the air of the apartment to be cold, but the feet and legs to be immersed in warm water, or wrapped up in warm woolen dress, the head, neck, and chest being left exposed. As soon as the circulation is free in the extremities, the patient is to be freely blooded, and next a blister is to be applied to the sternum and another to the back. Instead of giving alum, the mineral acids, and other astringents, he gives a combination of the nitrate of potash and sulphate of magnesia every two hours, until one or two loose stools follow, after which he trusts to emollient drink, with nitre and cream of tartar.

There are two principal objects to be kept in view, we apprehend, in hæmoptysis—first to arrest the hæmorrhage, and secondly to prevent the inflammation which usually follows. Cool air, blood-letting, and the supersacetate of lead with opium, we have found the most powerful medicines and means in arresting the hæmorrhage, opening the bowels once a day. The inflammation which succeeds is to be treated on the same principles that guide us in inflammation of the lungs in all similar constitutions. We have not found phthisis so *very generally* succeed hæmoptysis as our author and most other writers would lead us to expect.

The 4th chapter is on consumption arising from neglected peripneumony. This disease is rare in Russia, the fur dresses obviating its causes—sudden transitions of temperature. Our author questions the correctness of Laennec's statement, that the termination of pneumonia in abscess or suppuration of the lungs is a comparatively rare event. With due submis-

sion to Sir Alexander, we attach more credit to the researches and observations of Laennec. The breaking down and discharge of tubercles has, times out of number, been mistaken for abscess in the parenchymatous structure of the lungs. This chapter offers nothing on which we can dwell.

The 5th chapter is on bronchitis; but after having given a circumstantial account of the valuable work of Dr. Hastings, we cannot hope to present our readers with any thing new out of the present chapter.

The 6th chapter treats of the prevention of bronchitis, and consequent phthisis, from measles. Our author condemns the cold treatment in measles—a practice which is very little adopted, we believe, in England—we mean cold effusion, &c. and recommends the keeping up a very mild but constant moisture on the skin, especially during the whole of the eruption, and for a day or two after, by rigidly prohibiting all those drinks which are not tepid, whether simply aqueous or mucilaginous, and by keeping the patient in a regulated temperature. In severe cases, of course, we are to employ local and general bleeding, and blisters, in addition to warm air. In our experience, there has not been that great degree of gastric irritability described by our author, which forbids the use of antimonials, and especially of effervescing draughts. Our author's mode of treatment is, however, upon the whole, judicious.

The 7th chapter is on laryngeal and tracheal phthisis. The former is acknowledged to be almost entirely hopeless, when once established; but from some late trials our author has reason to hope it will cease to be so incurable.

"The only remedy which has hitherto arrested this fatal complaint has been the vapour of heated tar; and it promises to be effectual in most cases if taken in time, and if administered with all the caution which has been recommended. But the confining patients, labouring under this variety of phthisis, to an uniformly mild temperature, is also a most essential part of the cure. Patients labouring under this disease ought to speak as little as possible. The best internal medicines are the Iceland moss in large doses, and the balsam of copaiba, with the balsam of Tolu and sulphur at bed-time. *See Formula* 28.

"This last combination of medicines, which it occurred to me to try only of late, produced very decidedly good effects in a case which fell under my care. Where there is much pain, blisters afford a temporary relief: opium and its preparations do harm." 210.

The 8th and 9th chapters are headed thus:—is consumption hereditary?—is consumption contagious?—It is quite unnecessary to say a word respecting these two subjects now-a-days in this country. We shall, however, offer an extract on the second question from our author.

"It cannot be asserted that a specific contagion is generated in the lungs of consumptive people, because the ulcers which exist in that disease, not being in every case of the same kind, they cannot be supposed to generate the same poison; but the result of my experience in regard to this subject is, that where the air of an apartment is strongly impregnated with the breath of any one, or any number of consumptive people, labouring under the advanced stages of any variety whatever of purulent phthisis, a poison is often produced by the chymical influence of temperature on a confined air thus loaded with vitiated animal effluvia, just as the poison of scarlatina is often generated from temperature acting on air loaded with the breath and perspirable matter of a number of children, when confined in small apartments.

"That a healthy person sleeping constantly with one who has an open ulcer in the lungs, and especially where the ulcerated surface is large, or where the ulcers are numerous; and where a vitiated pus is formed, almost infallibly gains the disorder, is a fact which has occurred to me to see so often, that I have no doubt on the subject. It has fallen repeatedly to my lot, particularly among the poor, to see a husband gain the disease from his wife, and many wives gain it from their husbands, under circumstances where there could be no doubt as to the influence of the poison, and no other way of accounting for the disease." 223.

The 10th chapter is on the method of employing the tar vapour. The best tar, for the purpose under consideration, is that which is used in the navy and in cable manufactories. As it comes to market it is generally found to be contaminated, more or less, with pyroligneous acid, which being very volatile, is disengaged long before the tar boils. On this account the tar ought to be boiled for a few minutes in the open air, and then one or two ounces of the subcarbonate of potash added to each pound of the tar. Some water should next be put to it, and the whole well stirred together. When a visible whitish vapour rises in boiling, there is too much heat, or there are impurities in the tar. These circumstances cause coughing and irritation in the patients. In private practice, two adjoining apartments ought to be dedicated to the vapour, by which means each can be easily ventilated when necessary. Our author causes the door on the stair-case to be closed, and the windows well secured. The simplest way of charging the apartment is to put about a pint of the prepared tar into any flat dish of iron, copper or earthenware, which is to be placed about a foot from the ground, with a suitable lamp under it. It is to be regulated by the patient's feelings, and the temperature of the room is to be kept as nearly to 60° as possible.

"From what has been stated, it must appear that the chief *desiderata*, in constructing any establishment for the consumptive in such a climate as ours, are few in number, and yet of great importance.

They may be reduced under the following heads:

"1st. The possibility of charging, to any degree of concentration, all or any of the apartments with the tar vapour.

"2d A mode of ventilation which shall not expose the patient to a current of cold air during our cold seasons, or indeed at any time.

"3d. The possibility of having one large ward or room always fully charged, and of a due temperature, to which patients can resort for exercise.

"4th. The means of preserving an equal temperature in every part of the establishment to which the patients are admitted.

"All these essential objects may be attained by means of two chambers in the under part of the house; the one being a reservoir of heated air, the other a reservoir of the vapour. From these tubes of communication may be easily conveyed to the different parts of the establishment.

"The windows ought to be double, and two ventilators ought to be in each apartment: one in the centre of the roof, the other on a level with the floor. The first to allow the escape of superfluous heat, the second that of any heavy air. These are naturally to be opened only at times." 237.

Here we must close our analysis, having made our readers sufficiently acquainted with the nature and scope of Sir Alexander's work, to enable them to judge of its relative degree of importance. Considering that all the novel matter which it contains, might have been compressed into a very small pamphlet, or even a paper in a periodical journal, we cannot see the necessity there was for publishing a volume on the subject. If, however, the work never rises above, it never sinks below mediocrity, and therefore there is no demand made on the reviewer for either praise or censure.

VI.

History and Method of Cure of the Various Species of Epilepsy: being the Second Part of the Second Volume of a Treatise on Nervous Diseases. By JOHN COOKE. M. D. F. R. S. F. A. S. Fellow of the Royal College of Physicians, and late Physician to the London Hospital.

DR. COOKE pursues his erudite and industrious researches, and with the subject of epilepsy concludes his second volume of nervous diseases. It were greatly to be wished that a few of our Nestors in medicine would each select a class of diseases for their researches and meditations, in the manner of Dr. Cooke, in order that the general mass of professional society might become acquainted with the opinions and prac-

tices of ancient and modern writers, at a much easier rate than they now can. In fact, without some such auxiliary as this, ninety-nine in the hundred of our brethren must live and die in complete ignorance of the stores of medical literature now buried in the tomes of antiquity. Such an undertaking therefore as that of Dr. Cooke, deserves two things—encouragement by the public, and imitation by some of his learned brethren. But, without further preface, we must proceed to the volume before us, which appears to be constructed with equal skill and judgment as the preceding parts of the Treatise.

The work is divided into five chapters, embracing the definition and history, dissections, distinctions and causes, diagnosis and prognosis, and lastly, the treatment of epilepsy. These we shall notice seriatim, though very concisely.*

§ 1. *Definition and History.* The strange and formidable phenomena presented in epilepsy early attracted the attention of mankind, and called forth extraordinary appellations, as morbus sacer, comitialis, herculeus, caducus, &c. some of which are fanciful, some characteristic, and others enigmatical. The following is Dr. Cooke's definition.

"It is a disease consisting of paroxysms of convulsion, returning at uncertain periods, accompanied by an abolition of sense and voluntary motion, and ending in somnolency or complete sleep." 5.

We acknowledge the difficulty of definitions of disease, and therefore seldom criticise them. It appears to us, however, that the above definition is somewhat redundant, if indeed it be strictly correct. If we see the *voluntary muscles* in strong action, (whether with or without the will) can we strictly say that there is an "*abolition* of voluntary motion?" That there is *involuntary* motion admits of no doubt, and this being expressed by the term "convulsions," we think the "abolition," &c. superfluous.† But this is of no consequence.

* The matter in this volume, is still more densely concentrated than in any of the preceding—a circumstance that renders it difficult, or indeed impossible to give a closely connected chain of analysis—but which greatly enhances the value of the work to the public.

† We are strongly disposed to coincide in opinion with the physician alluded to in the following note at page 10 of the volume before us.

"But a physician, to whose opinions I pay great respect, informs me, that he doubts very much whether the will be always inactive in epilepsy, and whether the muscles are not to a certain degree obedient to it. The resistance to the exertions, he says, made by the bystanders to confine the limbs, appears to me, in some cases, to be voluntary, and to argue some perception of that resistance, and some desire to overcome it. The state of mind, in these cases, appears to me like that which takes place in dreaming and in delirium." 10.

The epileptic attack is more frequently without than with premonitory symptoms. When the latter take place, they are various and uncertain, as languor, pain or giddiness of the head, disturbed sleep, dimness of sight, tinnitus aurium, &c. Areteus enumerates distention of the veins of the neck, nausea and vomiting, flashes of light before the eyes, sense of disagreeable odours, &c. But the most remarkable precursor is the aura epileptica, a sensation difficult to be described, being likened by some to a stream of cool and gentle air blowing on the part affected, or ascending to the head from one of the extremities, when the paroxysm immediately takes place. Not the least light has yet been thrown on this mysterious sensation by any physiologist, though we can hardly attribute it to any other medium than the nervous system. In many instances it has distinctly arisen from a local irritation on the extremity of a nerve. We need not dwell on the symptoms of the fit. They have been described by poets and physicians of all ages. Lucretius has given a very spirited sketch of the epileptic paroxysm, from which, however, we shall only extract two or three lines as an example.

"——————— ut fulminis ictu,
Concidit. et spumas agit, ingemit, et tremit artus,
Desipit, extentat nervos, torquetur, anhelat,
Inconstanter et in jactando membra fatigat."

The terminations of epilepsy are various—as apoplexy, paralysis, particularly of the nerves of hearing and vision—but its most common termination is in idiotism or fatuity.

2. *Morbid Anatomy.* The morbid appearances presented in the persons of epileptics are chiefly confined to the brain, and many of them are very similar to those found after apoplexy or paralysis. These are generally effusions and tumours of various kinds—abscesses—exostoses—depressed portions of bone—sharp-pointed spiculæ, &c. which mechanically press upon and injure the brain or its investing membranes. The blood-vessels of the encephalon are very generally found greatly distended—and even blood itself has been often found extravasated—but not so frequently as serous fluid. A jellatinous substance—deep seated collections of pus—and a great variety of other morbid appearances have been discovered in the brains of epileptics, which it would be impossible even to enumerate.

It is strange, as Dr. Cooke remarks, that in the accounts of morbid appearances found after epilepsy, little or no notice is taken of the state of the cerebellum. Yet a celebrated

modern physiologist confidently asserts that, on examinations made by him, the *cerebellum* has *always* been found very greatly diseased. The physiologist in question is Wenzel, of Mayence, whose opportunities for observation have been very extensive, and the result of whose inquiries has been published by his brother, under the title "*Observations sur le Cervelet, et sur les Diverses Parties du Cerveau, dans les Epileptiques.*" Wenzel, impressed with a conviction that no individual could much advance the pathology and treatment of epilepsy, instituted a society for the purpose of co-operation in this work, the members of which entered into his views, and prosecuted the investigation with zeal. We shall give a long extract from the work before us, as Wenzel's observations are nearly unknown in this country.

"M. Wenzel had an opportunity of examining the heads of twenty persons, who had died, after epilepsy of the worst kind, and he has minutely described many curious alterations of structure, singular effusions, and other marks of great and uncommon disease, or at least of disease not hitherto noticed, of parts within the cranium, which are particularly interesting

"The brain, properly so called, has been generally considered as the chief seat of disease in epilepsy; M. Wenzel, however, in a very great proportion of the heads he examined, found that organ in a healthy state, but the cerebellum uniformly and in a very extraordinary degree and manner diseased. In fifteen of the twenty cases above mentioned, the brain was uninjured, but of the other five, in two the meninges were slightly diseased, in four, an effusion of a thick lymph was observed on the surface of the brain, and in three, a considerable quantity of water in the ventricles, in consequence of which the corpora striata and the thalami nervorum opticorum were much injured. and in one instance a softening and an enlargement of the brain was seen; but in fifteen of the twenty the brain was found to be in a sound state.

"The parts which M. Wenzel in these cases discovered to be principally affected, were the pineal gland, and the cerebellum; the former often, the latter always, injured in a greater or less degree. In ten instances the pineal gland was almost entirely of a gray colour; in one, it was white in its anterior part. and of a pale red in one half of its posterior part. In another case. on the superior surface of the pineal gland, a brownish yellow transparent vesicle was observed, from which a considerable quantity of a clear yellow fluid was thrown out; in a third, the pia mater surrounding the gland was thicker than ordinary. and partly of a red, partly of a yellow colour. The pineal gland was always found softer, and in all the instances, excepting two, smaller than natural; in those two, however, it was much enlarged.

"In three instances, the infundibulum was more firm than usual, and round about it, a thick lymph was effused, which in some places could be raised up like a membrane. The superior part of the infundibulum was in this case of a red colour, and bore marks of in-

flammation. In one instance, through its whole length, it was extremely red.

"The most extraordinary morbid appearances, however, discovered by M. Wenzel in these dissections, were those which he found in the cerebellum. He observed that organ to be morbidly affected with respect to its surface, its consistence, its colour, its size, and the state of its internal parts. In one case, the whole surface of the cerebellum appeared unequal and furrowed; in another, about the insertion of the infundibulum there was a very large excavation, from a loss of the substance of almost the whole of its superior surface; and in a third, there was a great depression of the anterior edge of the cerebellum In two instances, its superior surface was of a fibrous appearance, and much furrowed.

"The colour of the cerebellum was sometimes of a pale, but more commonly of a dusky red, of different shades, and approaching to blackness; sometimes it was of a whitish or yellow colour, and in two instances its posterior lobe was of a pale gray.

"In three cases, M. Wenzel found the cerebellum very soft, but in five others, it was harder and more compact than natural. Its size was often considerably increased; sometimes, under circumstances to be hereafter mentioned, it was prodigiously enlarged.

"The most remarkable and important alterations observed in these dissections were those found in the interior of the cerebellum, which had probably occasioned its increased size, and the diseased appearances on its surface, above-mentioned.

"After having made one or two horizontal sections of the cerebellum, M. Wenzel, in ten instances out of the twenty, found between the lobes, at the point of their union, a yellow, friable, solid matter, which almost always had produced not only a separation of the lobes, but a loss of their substance. This matter could easily be raised in pieces Sometimes, at the junction of the lobes, a half fluid viscous lymph was seen separating them; sometimes, upon the superior surface of the cerebellum, spots were produced, by a collection of a perfectly white or yellowish brown lymph, which had become solid. In those cases in which the cerebellum was observed to be much enlarged, a great quantity of lymph, more or less thick was seen between the lobes. In one instance, on separating them, a large quantity of a thick colourless fluid was thrown out, which ran to the point of their union. M. Wenzel thinks, that if the subject of this dissection had lived longer, the fluid observed would have gradually acquired the appearance and colour of the matter seen in other cases, on examination after epilepsy. In one case, on cutting the cerebellum where the lobes touch, a round ball was observed, containing several small globular transparent bodies, much resembling the granulated substances often seen in the pineal gland. On the superior surface of the cerebellum, marks of inflammation were sometimes visible.

"These were the chief morbid appearances found by M. Wenzel, in the examinations of the brains of persons who had been affected with epilepsy." 38.

It is, as Dr. Cook observes, truly surprising that Wenzel should have invariably found the cerebellum diseased in epilepsy, and that other pathologists should have scarcely noticed such a phenomenon. This mystery can only be settled by future investigations. The foregoing extract will induce our readers, when they have opportunities, to examine the cerebellum with great care, in their future dissections of epileptic patients.

It is not to be supposed, however, that the morbid appearances are confined entirely to the head, in epileptic cases. The heart, the lungs, the liver, and the intestines, have all been found in a morbid condition. M. Prost, in his "Medecine Eclairée par l'Observation et l'Ouverture des Corps," asserts that, in all the cases of epilepsy which he has examined, he found masses of worms in the intestines, generally accompanied with acrid substances in different parts of the alimentary canal. The spinal marrow has been found diseased in a considerable proportion of epileptics. Finally, some people have died of this disease where (it is said) no morbid appearances whatever presented themselves on dissection. This we can hardly believe; because we know how slovenly some dissections are performed. Not that we suppose it is absolutely necessary there should exist an organic affection of the brain or other part, in order that the phenomena of epilepsy may be developed. But we believe that few cases go on long, or prove fatal, without leaving traces of disorder in the vessels or nerves, or other structures of the body.

3. *Distinctions and Causes.* Dr. Cooke considers the disease under the two general heads, *idiopathic* and *symptomatic*—the first, a primary affection of the brain—the latter, having its origin in some other part of the system, the sensorium being affected secondarily.

In respect to etiology, Dr. Cooke believes, and with reason, that a certain constitution of brain and nervous system renders particular individuals predisposed to the attacks of epilepsy. This is the temperament "qui colligit et ponit iram temere, et mutatur in horas." A certain conformation of cranium seems to predispose to epilepsy. Leduc remarks that the heads of epileptics are larger and the skulls thicker than in healthy persons; an observation confirmed by Lorry and others. The predisposition to epilepsy, like that to many other diseases, is often hereditary, being transmitted from parent to progeny.

Almost all writers have placed plethora among the predisposing causes of this disease. We do not mean to say that general plethora is necessary; for we have seen epilepsy in

every kind of temperament; but we are convinced from the phenomena during life, and the appearances *post mortem*, that *local* plethora exists in the head at the time, and probably before the attack commences. Of the exciting causes, some act directly on the brain, others produce their effects primarily upon distant parts, and secondarily upon the brain.

"Among those which act primarily upon the brain, the chief are mechanical c uses, such as malconformation and injuries of the cranium, tumours, depressed bone. sharp pointed spiculæ, situated on the internal surface of the skull, hydatids congestions distending the vessels of the brain, changes in its str cture, or disease in its substance, and effusions of various kinds To these may be added, causes acting mechanically on the spinal chord or the nerves, and the morbid appearances in the pineal gland and cerebellum, discovered after epilepsy by Mons. Wenzel, which have been already particularly described." 56.

The above causes, in all probability, act by stimulating or compressing some part or parts of the brain. M. Portal proved, by experiments, that pressure on the sensorium, in a great degree, will cause apoplexy; and, in a smaller degree, convulsions. Thus apoplexy, by a diminution of the power of the exciting cause, may end in epilepsy; and epilepsy, by an increase of it, may terminate in apoplexy—which indeed is not a rare occurrence. But we must pass over a great deal of valuable information collected by our author from various sources, because the subject of epilepsy occupied a good deal of our attention when reviewing Dr. Prichard's work in our last volume. We shall therefore pass on to the fifth and last chapter on the TREATMENT, occupying nearly two-thirds of the volume.

4. *Treatment.* Our author first notices the idiopathic species of epilepsy. Where premonitory symptoms are cognizable, as vertigo, pulsation of the carotids, confusion of intellect, and the like, then depletion should be immediately had recourse to—especially blood-letting and purging. Fraser, in his treatise on epilepsy, recommends 30 or 40 drops of laudanum in a drachm of camphor julep, to be taken as a preventive. The practice of stopping the progress of the aura epileptica to the brain by a ligature, was known to the ancients. We have little faith in such a process. In the actual paroxysm we can do little else than confine the patient, so as that he may not injure himself, loosening all his clothes, and keeping his head high, and preventing the laceration of the tongue by a piece of cork or wood in his mouth. The radical cure must be put in force during the intervals of the

paroxysms. The correction of the predisposition, and the removal of the exciting causes, form, of course, the basis of the treatment; but the causes are often unknown, and in what the predisposition consists is often unknown also. As fulness of the cerebral vessels is one of the best ascertained conditions, as connected with epilepsy, the lowering plan is very generally recommended by both ancients and moderns —especially by Aretus among the former, and Tissot among the latter. Dr. Cooke introduces some observations and cases from Mr. Henry Earle which we shall here notice.

"A young gentleman," says Mr. Earle, "aged sixteen, was subject to epileptic fits, accompanied with most alarming determination of blood to the head. He dated these paroxysms from a fall which he had into the hold of a ship in China, where he subsequently suffered from a bad fever. The fits usually occurred before he rose in the morning; but he was frequently liable to them during the day. At the time when I first saw him, they were increasing so much in frequency, that he was never certain of passing a day without a seizure He was constantly afflicted with severe head aches, was very drowsy, and his memory was very defective. I was first called to him during one of the most severe attacks he had ever experienced. I found him perfectly insensible, with stertorous breathing, and his eyes and whole countenonce evincing great determination to the head. He h d passed his urine and fæces involuntary I immediately bled him from the arm and jugular vein; but he did not evince any signs of returning sensibility until I had taken between forty and fifty ounces of blood. He remained in a state of stupor for some time, and experienced much numbness in his right arm and leg, which did not wholly subside for several days. I recommended a strict vegetable diet, and purged him freely, which kept off the attacks for some time. During the winter I was twice called to him, in nearly the same state as I have above described; each time the fit came on early in the morning, and required the same active measures to be pursued. From observing the very powerful action of the carotid arteries, I was induced, in one of his attacks, to try the effect of compressing those vessels, which appeared much to shorten the duration of the fit. I explained to him and his friends the exact situation of the vessels, and showed him how to compress them, being anxious that he should make a trial of pressure, on the least threatening of a paroxysm, of the approach of which he was generally sensible from the rushing noise in his ears, and an indescribable dread which took possession of his mind. It was not long before an opportunity offered of making the experiment, and he was confident that he postponed the attack. Very frequently after this, he succeeded in arresting the approaching fits; but he was still occasionally liable to them early in the morning, on first waking." 114.

By perseverance in a very rigid diet and lowering remedies, he quite recovered. Mr. Earle has known another

instance of epilepsy, in which pressure on the carotid arteries seldom failed to arrest the fit. He also witnessed a marked good effect from a local abstraction of blood in case of epilepsy of long standing.

"A lady, between thirty and forty, had been subject to fits from her infancy, for which she had been treated with strong stimulating nervous medicines, and very full diet. She generally experienced a succession of fits, to the extent of six or eight; and the attacks were always preceded and followed by severe head-aches, and much convulsive twitching. I found her just coming out a second fit, and quite insensible; her countenance was crimson, and her eyes quite ferrety. The determination to the head was so marked, that I immediately recommended cupping from behind the ear, which was performed to the extent of sixteen ounces. She speedily became sensible, and had no return of fits; but instead of falling into a profound sleep, which was the usual consequence of an epileptic paroxysm, she became extremely talkative, and her imagination was so unusually active, that she soon began to speak as if conversing with persons who were not present. By reasoning with her, she was made sensible that she was talking incoherently; but soon relapsed again. I was called to visit her in this state, and by giving her a powerful dose of camphor and opium, she very soon became composed, and fell into a quiet sleep from which she awoke perfectly well and free from head ache. The effect of the sudden abstraction of blood from a surcharged brain in this case was very curious, and might lead to much speculation; but as facts are rather desired than theories, I give you the simple narrative." 117.

The foregoing case appears to have been complicated with some degree of that state which is denominated delirium tremens, or at least an approach to it. Out of five dissections which Mr. Earle has made of epileptic patients, two had tumours in the cerebellum and cerebrum—and three had "ossific productions from the basis oranii, which had induced chronic disease in the contiguous membrane and substance of the brain."

That blood-letting, local or general, is very generally a powerful auxiliary in the treatment of epilepsy, few will be inclined to deny; but we question whether more than a very few have been cured by this measure, or by it and the other means of depletion alone; where the cause is at a distance from the head, as for instance in children, where worms produce epilepsy, then purgation may cure the disease; but otherwise purgatives can only be considered in the light of auxiliaries. Setons or issues in the neighbourhood of the head or spine are more permanent depletors than purgatives, and may often be useful. Dr. Abercrombie is of opinion that the only remedies of real efficacy in these cases (plethoric

epilepsy) are purgatives and strict vegetable diet, with total abstinence from strong liquors.

In opposite states of the system, tonics have been pretty generally exhibited by modern physicians, as bark, the misletoe of the oak, and metallic salts of various kinds. Dr. Fraser asserts that he cured nine cases out of eleven of epilepsy by the viscus quercinus. He gave it in powder in the dose of from two scruples to two drachms, twice a day, in a draught of camphorated emulsion. It is said, that the late Drs. Fothergill, Thompson, and Willan, gave this remedy also with success. It is now almost entirely neglected.

The nitrate of silver is the empirical remedy at present most in use for the cure or mitigation of epilepsy, and Dr. Cooke has collected a considerable mass of living authorities on the subject. Dr. Baillie has a high opinion of this medicine, and frequently prescribes it. Dr. Powel has long ago proved that it may be taken in far greater doses than one would be led to suppose from its effects on the external surface of the body.

It is now pretty generally known that the nitrate of silver, when taken a certain length of time, will, in some constitutions, turn the skin of a blue colour. We believe the late Mr. Goldson of Portsmouth was the first to notice this curious fact, about twenty or more years ago. The lady who was cured of epilepsy by him is, we believe, still living, with a darkened complexion. There are now some thirty or forty instances on record of a similar kind—and in the majority of these cases, the disease was subdued, which is some compensation for the change of complexion. We have only seen two instances of the kind, and in both the cure was perfect. From all the inquiries we have been able to make, no case has occurred where this discoloration took place under *four months'* use of the nitrate. We believe Dr. Baillie makes it a rule not to continue the medicine longer than the above mentioned period at any one time. Dr. Roget has informed Dr. Cooke that he has known *several instances* of this discoloration without any cure of the disease. In the instance, however, which he published in the 7th vol. of the Medico-Chirurgical Transactions, the cure remains complete, as well as the blue colour, after an interval of twelve years.

The preparations of Zinc are by some considered efficacious in epilepsy, and so far has been the cuprum ammoniatum, especially by Cullen. Our readers are aware that Dr. Shearman has recommended the "elutriated oxyd of tin," as a remedy of much service in this disease. Dr. Abercrombie informs our author that he has seen very good effects from keeping patients under the influence of tartrite of antimony,

in such doses as the stomach could bear, repeated four times a day. The modus operandi of these medicines is but little known. The oil of turpentine has lately been a good deal used in epilepsy. Dr. Latham, in his work on diabetes, informs us that he has several times relieved, and more than once cured epilepsies by the oleum terebinthinæ. A great many testimonies to the anti-epileptic properties of this medicine are now to be found scattered through our periodical publications. Dr. Young, in the 5th volume of the College transactions, gives two instances of the good effects of the oleum terebinthinæ rectificatum, exhibited in large doses. The late Dr. Edward Percival, of Dublin, as our readers know, has published some interesting observations of this remedy in maniacal epilepsy, as the result of much experience in the Hardwicke Lunatic Asylum. The form used was this:—an ounce of the oil was triturated with an equal weight of lump sugar, and a pint of spearmint water was gradually added. A full dose of this emulsion is an ounce three times a day. The salutary effects of this medicine in the cases detailed were very evident; for besides the striking alleviation of their epileptic disorder, and its maniacal adjuncts, all of the patients gained considerable improvement in their general health, appetite, and cheerfulness. Mr. Lithgow of Coleraine has also given us a strong testimony in favour of the medicine. Our readers are aware that Dr. Prichard is a strenuous advocate for this remedy in uterine and enteric epilepsy, as was seen in our ninth number.

Of the administration of opium, hyoscyamus, digitalis, and other sedatives, we need not speak, as few men, now-a-days, put any confidence in them. In a former number of this journal we gave some account of Mr. Mansford's work on epilepsy, and of his apparatus for carrying off the excess of electric matter from the brain, in which consists, he thinks, the proximate cause of epilepsy. We do not suppose that this eccentric theory of Mr. Mansford has made any impression on the profession, and we should not have noticed it here, had it not been that we lately came across an old acquaintance who had long been subject to epilepsy, and who adopted the apparatus as described in Mr. Mansford's work, with success. Whether the force of imagination had any thing to do in this case, or that the cure was owing simply to the remedy, we do not profess to decide—we only relate the fact as it has come to our knowledge.

"In some instances," says Dr. Cooke, "both the cautery and trephine appear to have been employed by the ancients in attempting the cure of epilepsy; but the moderns, until very lately, did not venture to try the former of these powerful remedies. The opera-

tion of trepanning was, however, recommended in some cases, by Boerhaave and others of his time." 195.

Of late years the ancient practice of cauterization has been revived—particularly by Baron Percy and Dr. M. Gondret. In the Baron's work (Pyrotechnie Chirurgicale) we have a very minute account of every thing relating to the use of the actual cautery in medicine and surgery. He agrees with Galen and Aretæus that a very hot cautery is, to one of a lower degree of heat, so far as relates to pain, what a very sharp bistoury is to one that is blunt. He says that the cauterization of bones gives no pain.

"The success of the application of fire which Baron Percy has witnessed in many terrible cases of epilepsy, he refers to the simultaneous cauterization of the skin, the pericranium, and the bone, exciting in the cerebral system, that specific commotion, that sensation from fire (sensation ignée) which no other agent can produce." 199.

The ulceration and discharge, he says, must be kept up, after the cautery, for a considerable time, if we hope to reap the full benefit of the operation.

Dr. Gondret has also employed, with great success, he avers, the actual cautery in many cases of epilepsy supposed to depend on a diseased state of the cranium, brain, or membranes. He adduces several striking instances of the great utility of this practice, and promises to bring forward many others. But although M. Gondret had completely convinced himself of the truth of his doctrines and efficacy of his practice, he found great difficulty in persuading his patients to submit to operations so abhorrent to the feelings. He therefore directed his attention to the discovery (if possible) of a substitute for the actual cautery.

"What M Gondret wanted was an application which might either irritate, or produce a rubefacient, or a vesicating, or an escharotic effect, according to the indications to be fulfilled This, he says, he was fortunate enough to discover in a simple preparation, well known and much used, though for a different purpose, namely ammonia. This alkali joined with fat or olive oil, he found would form a pomade capable of fully answering his purpose, by acting as a stimulus in different degrees; so that when slightly rubbed on the surface, it produced gentle irritation of the skin; when spread on linen and applied for six or eight minutes it acted as a rubefacient; when for a quarter or half an hour, it occasioned vesication: and if applied for a still longer time, it proved escharotic." 203.

The form which M. Gondret uses is six drachms of suet, one or two tea spoonfuls of oil of almonds, and one ounce of the liquor ammoniæ puræ.

Upon the whole, as Dr. Cooke properly observes, although this treatment (the actual and potential cautery) may give much pain and inconvenience, yet it promises considerable benefit, in epilepsies dependent on or connected with malconformation of the cranium, exostoses, depressed bone, a diseased state of the investing membranes, or any cause acting mechanically upon the surface of the brain.

On the epilepsies connected with, or sympathetic of, certain morbid affections of the abdominal or pelvic viscera, particularly of the intestines and uterus, Dr Cooke offers very judicious observations and directions; but as these have been fully treated of in our review of Dr. Prichard's work, we must here pass them over, referring to Dr. Cooke's excellent epitome of ancient and modern opinions upon all points connected with the disease. We need not here repeat the opinion which, on several occasions, we have been induced to offer on the merits of these volumes But we can bear testimony to the truth and accuracy of the concluding passage in Dr. Cooke's publication.

"I have now finished what I had to communicate respecting the history, causes, and method of cure, of apoplexy, palsy, and epilepsy—in my account of these very important nervous diseases, I have endeavoured to abstract, to condense, to methodize, and to convey in clear and plain language, the best information I could collect from a great number of writers, both ancient and modern.—I cannot flatter myself that, by the investigation which I have made of these obscure disorders, I have done much towards the illustration of their nature; but I do hope that the description I have given of the experiments, observations, opinions, and practice, of the most celebrated physicians in various ages, respecting them, will prove, in some degree, useful, both by lessening the labours of the student, and by affording practical assistance to persons who are actually engaged in the duties of the profession." 235.

The plan and professed object of Dr. Cooke's work necessarily precluded the attempt to introduce any novelty or much original matter on his own part. A comment or occasional remark on the opinions of others, with short statements of his own experience, were all that he could introduce into a work of this kind; and these he has introduced—sparingly it is true, but always judiciously. We take leave of our author for the present, with every sentiment of respect and esteem.

VII.

*Remarks on Cutaneous Diseases.** By J. H. Wilkinson. London, pp. 87.

The task of analysing this little work is rendered less easy than it might have been by the total want of method in the arrangement, and the absence of an index or table of contents. There are, in the whole, four chapters of unequal length. The first of them has not any title—the second is headed "the Prurigo"—the third and longest "Porrigo"—and the last "the Impetigo, &c." In a short preface, the author takes occasion to express his dissatisfaction with the existing "arrangements and treatment" of diseases of the skin; but he does not profess to supply these deficiencies.

It is not, he says, his intention to give a systematic account of these affections, and he appears of opinion subsequently that Dr. Willan has already accomplished, in this point, all that can be desired, as he bestows upon his classification unqualified praise, (pp. 9, 13, 75.) Neither does Mr. Wilkinson propose to offer to our consideration any new remedies, (p. 31;) his chief object being to point out which of those in common use he has found the most efficient, as well as the best mode of applying them. "This," he adds, "is my principal motive for writing these remarks; an additional one is, that this exposure of my simple ways and means has *lately*† appeared to me to be absolutely necessary for the support of the little reputation I had gained; for it has been thought, by many, that I had been in possession of a secret which I was unwilling to divulge; but it will now be perceived, that any little success of which I can boast, has been owing to the combination of the remedies, but still more to the *method* of *applying* them." (P. 32.)

Mr. W. has not any thing new to communicate concern-

* We transmitted Mr. Wilkinson's work on Cutaneous Diseases to a gentleman and friend, who has made those diseases a particular, though not an exclusive study. He returned us the following concise analysis of its contents, with only this remark. "It is not my purpose to estimate the merits of this production, but to place the materials for doing so in your hands." Now, in the majority of instances, this is just what we do for, and say to, the public—therefore to the public it shall go as it came to us.

† It will appear in the sequel, that Mr. W. has employed his two magna remedia, (volatile alkali and unguentum picis cum sulphure,) the one *sixteen* and the other *seventeen years*, with the same happy results. Vide pp. 28 and 73.

ing the anatomy and physiology of the skin, and he passes on at once to the pathology of that organ. He apprehends that writers, in general, have too little regarded the "secretion upon the surface of the true skin, and its power, when altered from its natural state, of producing *all* the different eruptions;" "nor yet how dependent all their varieties are, upon the different states or condition of the skin, upon which such disordered secretion acts," (p. 1.) And he distrusts very much the correctness of "the prevailing opinion that different eruptions are produced by different diseased secretions;" and declares his belief, "that the diseased secretion is always essentially the same; and that the varieties of the eruptions are produced solely by the conformation and constitution of the subject." (P. 2)

In other words, we understand him to say, that the thirty-eight genera of Dr. Willan's system, and the two afterward added by Dr. Bateman, (viz. rupia, and a tubercular affection resembling syphilis, described in the fifth volume of the Medico-Chirurgical Transactions) are, with their multifarious varieties produced by one and the same morbid secretion, developing itself according to the idiosyncracy of individuals in the diverse forms of pimples, scales, rashes, blebs, pustules, vesicles, tubercles, and spots.

In imparting to us his methodus medendi, the author begins by acknowledging his obligations to Dr. Peart, (of Butterwick, near Gainsborough.) This physician, rather more than twenty years since, published a small tract,* in which he strongly recommended the volatile alkali as a specific in scarlatina maligna. Mr. W. adopted the use of the medicine; and "consonant," he says, "with my own principle, that an effectual remedy for one genus will, with proper management, cure all the genera of the same order, I administered it in all the following diseases—erysipelas, rubeola, scarlatina, urticaria, roseola, and erythema, with all their varieties; and I am happy to be able to declare that, from that moment to the present, a space of seventeen years, I have not only never lost a patient in the above diseases, but I have never had a case of the kind that has ever appeared dangerous, or that has even given me a moment's uneasiness." (P. 16.) He conceives that erysipelas has been improperly classed in the order bullæ, by Willan and Bateman, and that the inflammatory action attending the disease is more analogous to that which accompanies some of the exanthemata.

It may not be improper to remark, in this place, that Dr. Peart published, at a period subsequent to the appearance

* Practical information on the Malignant Scarlet Fever and Sore Throat.

of the address alluded to by Mr. W. a *second*, which has evidently escaped that gentleman's notice, for the express purpose of advising the extension of his remedy (the volatile alkali) to the treatment of rubeola, erysipelas, and *erythematous affections in general:* and, at the same time, he states it as his opinion, that these diseases and scarlatina "are branches of the same radix."*

Mr. W. in introducing the subject of porrigo, expresses his conviction that this offensive disorder has become very much more prevalent within the last quarter of a century, and he is inclined to attribute this circumstance to the large number of children sent, during that period, to this country, from the East and West Indies; and by whom, he conceives, the infection has been imported, and transmitted, through the medium of schools, into all parts of the island.

His statement, in regard to the non-contagious nature of the porrigo larvalis, or crusta lactea, concurs with that of Dr. Bateman, in the last edition of his synopsis, and the same fact has been more recently noticed by Dr. Smith, in Dr. Willan's Miscellaneous Works.—(Reviewed in the Medico-Chirurgical Journal, for June last.) But, we believe, Mr. W. is singular in maintaining that the porrigo favosa is not infectious. (P. 54.) In treating of the first-mentioned variety, he takes occasion to combat a notion which, he says, obtains among "some of the most eminent practitioners of the present day," that this eruption depends upon *poorness of blood*. P. 47. In respect to porrigo perforans, he doubts the accuracy of the assertion of Drs. Willan and Bateman, that it chiefly affects adult subjects; and observes that, in his own practice, the proportion of patients affected with this complaint has been as one adult to thirty children. He does not think that this variety of porrigo *commences* with achores, but that these pustules arise during its progress from neglect of cleanliness. In the treatment of porriginous affections, the author relies principally upon the very liberal application of an ointment, which he has likewise found useful in the squamous and some other diseases of the skin, and for the preparation of which he gives the following formula:—

R. Sulph. sublim.
Picis liquidæ.
Ax. g. porcin. āā Oss.
Terræ cretos. ʒiv.
Hydrosulph. ammon. ʒij.
M. ft. unguentum.

* See Practical Observations on the Erysipelas, and on Erythematous Affections in general, and on Porrigo; in which new modes of treatment are recommended. By [illegible]

Mr. W. considers this ointment as the "very best single application," but finds it necessary occasionally to have recourse to other stimulants, as aromatic vinegar, and the solutions of nitrate of silver and corrosive sublimate.

For the purpose of correcting disordered states of the digestive organs, he is accustomed to give Plumer's pill; and to improve the secretion of the skin itself, he directs the use of Fowler's arsenical solution. In eruptive complaints, he enjoins abstinence from wine, spirits. ale, and porter, shellfish, dried fish, salmon, herrings, and salt provisions. "Principally," he remarks, "upon this plan, and with these remedies, I have, for many years, succeeded in curing, with comparative ease, the following diseases, viz. prurigo, lepra, psoriasis, pityriasis, impetigo, porrigo, scabies, and sycosis." (P. 38.) And he further asserts, "that, for sixteen years past, in the different varieties of porrigo, I have, with the *same remedies*, and with the *same mode of treatment*, cured, upon the average, 95 cases out of 100, notwithstanding that Dr. Willan says that, "under these varying circumstances, how futile must be the pretensions of those who profess to remove this complaint, and every other form of porrigo, by the same mode of treatment, or by one specific application." "Dr. Bateman, who seems always to be very cautious not to say any thing which his great master has not previously said, makes no remark upon this subject, that is worthy of notice." (P. 74.)

Mr. W. has employed his remedies, in a case of LUPUS, with sufficiently good effect, to encourage further trials, (p. 79;) and in another eruption of the face, "which was believed by many of the profession to be lupus," but which he considered to be "only a very exasperated state of psora," much improvement under the same mode of treatment took place.

It does not appear quite clear what disease is intended to be here designated under the name of psora. Previously to Dr. Willan's time the term psora was employed as a generic appellation for the itch; and, by the older writers, the scaly tetter was so denominated. The itch, as the author correctly observes, "avoids the face," (p. 84;) and it seems scarcely probable, that a scaly and superficial affection of the skin, like psoriasis, should, by medical men, be confounded with the tubercular and devastating noli me tangere.

The labours of the celebrated continental dermapathologist are thus described by Mr. Wilkinson. "From the perusal of M. Alibert's inflated fustian, in his 'Description des Maladies de la Peau,' I rise, as I think every sober man must arise, puzzled and disgusted." Surrounded with greater

advantages than any other surgeon in Europe, and with Dr. Willan's work open before him, he has neglected that learned author's beautiful arrangement, and has contrived by his perplexing pathology, and by his inefficient and contradictory remedies, to render this department of the science more confused and incomprehensible than he found it. The only remark which he makes upon these diseases, which, in my opinion, is worth our attention, and which might have been expressed in four words, is his conclusion, that *there is nothing like sulphur.*" (P. 76.)

The sketch that follows is probably intended for an eminent practitioner of our own country :—

"Another author, I understand, sits in the professor's chair, laughing at all of us, ridiculing all classification and nomenclature, and all external applications; like David against Goliath, he enters the field against this formidable enemy, armed only with the blue pill and senna tea for his internal action; and for the external, a little hog's-lard or common cerate, after wiping the eruption particularly dry. Surely this is riding the digestive hobby with a vengeance." P. 76.

VIII.

DYSENTERY.

1. *Medical Report of the Whitworth Hospital House of Industry; containing an Account of Dysentery, as it appeared in the latter end of* 1818. By J. Cheyne M.D. F.R.S. Ed. Physician General to his Majesty's Army in Ireland.

[Dublin Hospital Reports, Vol. III. Dublin, 1822.]

2. *Observations on the Acute and Chronic Dysentery of Ireland; containing a Historical View of the Progress of the Disease in Ireland; with an Enquiry into its Causes; and an Account of its Symptoms and Mode of Treatment; with a Report of Selected Cases.* By John O Brien, M. D. Fellow and Censor of the King and Queen's College of Physicians in Ireland; and Physician to the Fever-Hospital and House of Recovery, Cork and Dublin. 8vo. pp. 100, Dublin, 1822.

Faithful reports of epidemic diseases are very useful, as they enlarge the mind by acquainting us with the modifications produced by climate, modes of life, classes of society,

and constitutions of the air. These reports *ought* to have the effect of guarding us against placing implicit confidence in a remedy because it has been successful in one epidemic—and of condemning it because it has not proved all-powerful in another. Yet the reverse of this salutary effect is not unfrequently experienced; such is the waywardness and weakness of the human mind.

It need not be stated that dysentery has proved a great scourge in our camps, fleets, and even in our cities, at times. In England, however, it has not prevailed to any great extent, in an epidemic form at least, for a good many years. Not so in the sister kingdom. In the course of the last five or six years, we are informed by Dr. O'Brien, this disease has been more frequent and fatal than usual in Dublin, and generally throughout Ireland. It was the precursor, and has continued the survivor of the late epidemic fever of that country. In its complications with the fever it aggravated that disease, and greatly augmented the mortality. It appears, from medical and historical records, that Ireland has been always considerably obnoxious to this form of disease. Sydenham entitles the flux to at least the second rank among the *leaguer* sicknesses of the 17th century in that unhappy country; and Walker, in his history of the siege of Londonderry, gives a lamentable account of the havoc produced by dysentery, both in the garrison and in James's army. Dr. Cheyne found, on examining the records of the Army Medical Board in Ireland, that dysentery has much decreased among the troops of that country within the last twenty years—doubtless on account of the great improvements in the barrack and hospital system. It appears from the same records, that the English and Scotch regiments generally suffered on their first coming to Ireland with this disease.

The patients admitted into the Whitworth Hospital, under Dr. Cheyne, "were frequently of worn-out constitutions," and had co-existent organic diseases, which, of course, rendered the cure more difficult. That it was, in the present instance, rather one of the forms of the prevailing epidemic fever, than genuine idiopathic dysentery, such as we meet with in the hotter regions of the earth, will appear probable from the following statement of Dr. Cheyne.

"Very often dysentery arose during convalescence from fever, in which case I several times ascertained that the preceding fever was not attended with any unusual gastric or enteric irritation. Sometimes the disease commenced at the termination of fever, and then it was at first so slight as to appear like a salutary crisis, its only symptoms being mucous stools with a degree of uneasiness at the termination of the rectum. Frequently the disease arose in the

course of fever. Nausea, mucous or bilious vomiting, a tenderness of the epigastrium, and deep yellow suffusion of the skin, characterised many fevers which occurred in the autumn of 1818; and when symptoms of dysentery took place before those of fever ceased, first, there were borborygmi and tormina, then mucous and bloody stools and tenesmus, the character of fever being gradually lost as that of inflammation of the mucous membrane of the great intestines was established; but from the peculiar nature of the fever of the season it was sometimes difficult to mark the precise time when the new disease commenced. The bilious fever of the autumn continued till near the termination of winter, consequently it existed as long as the dysentery was prevalent in the Hospital of the House of Industry. When the symptoms of bilious or gastric fever were exchanged for those of dysentery, probably an extension took place of the irritation from the mucous membrane of the stomach and small intestines to that of the large intestines; hence borborygmi and tormina, as they occur in affections of both portions of the intestines, were not sufficient to mark the change in the disease till they were attended by mucous bloody stools, then indeed the case no longer admitted of doubt." 17.—*Dub. Hosp. Reports, Vol. III.*

Dr. Cheyne indeed says, that the disease was often *apparently* unconnected with the prevailing fever, and then it was assigned by the patients to cold, damp, hardships, &c. At page 19 he remarks, that fever and dysentery were frequently converted one into the other; and that it seemed as if the contagion of fever, from some modifying condition of the system, "may have produced at one time fever, at another dysentery." These circumstances must be carefully remembered when we come to speak of the treatment; for it would be highly unfair, as well as unphilosophical, to expect the same results from particular remedies under the above circumstances, as where there was no epidemic constitution, no contagion, no fever, and no broken down constitutions.

"In almost every patient," says Dr. Cheyne, "of whose case we obtained a distinct account, whether the disease arose from fever, or was unconnected with it, a remarkably foul taste was complained of, such as often exists when there is a deficiency of bile in the intestines; considerable flatulence also existed, then rigor took place, which was the commencement of pyrexia: there was a case or two, in which the rigor took place after symptoms of dysentery were established. In a few cases nausea occurred as one of the earliest symptoms; in a few, tenderness of the belly; in several, a severe lancinating pain in some of the abdominal regions, generally in the umbilical, or even lower; but in the common course of things the rigor was followed by gripings, a frequent inclination to go to stool, with a desire to continue the effort, by which the bowels are emptied, and to these symptoms there was soon added a feeling as if the effort had been unproductive or incomplete,—as if there was still something

remaining in the bowels; the skin was dry and hot, sometimes pungently so, the stools from the first were loose, perhaps not immediately undergoing any other change in their appearance, but in general they were mucous, and in rather more than one half of the cases there was a discharge of blood on the very first day of the disease." 20.

After a most diligent inquiry, they "could not discover that scybalæ were passed by any one of the patients." We wonder indeed how the idea ever could have been entertained that scybalæ were in any way connected with dysentery; for in nineteen cases out of twenty, no scybalæ will be seen, in any climate, or in any form of the disease. This has not been a harmless error. The search after these imaginary matters in the bowels, or rather the anxiety to dislodge them, has led to a cruel and injurious system of purgation in dysentery. In the discharged matters, we observe Dr. Cheyne enumerates almost every kind of secretion and excretion, healthy or morbid, except bile.

"In many respects," says Dr. Cheyne, "the dysentery of 1818 resembled that which has been described as occurring in tropical climates.* As in the latter variety, so in the former, the functions of the liver and skin were disordered from the commencement of the distemper, and continued thus until its termination. The skin was remarkably unyielding, and, if we may judge by the appearance of the stools, the biliary secretion was often suspended for many days."—Reports, p. 82.

Dr. Cheyne's prognosis was unfavourable in proportion to the degree of tenderness in the abdomen, pain, frequency of stools, fever, "and more especially quickness of pulse." It was very difficult to ascertain whether, and to what extent, there was ulceration of the mucous membrane. When the disease continued twelve or fourteen days, considerable emaciation usually came on; and when to this was added a haggard look, with quickness of pulse and abdominal tenderness, there was little hope of recovery.

"A harsh, dry, opaque, dirty looking skin, a florid, clean, varnished tongue, vigilance, a hollow eye, and pallid, wasted, faded cheek, a desire to go to stool immediately after drinking, pains in the knees, and cramps in the legs, fits of dyspnœa, a tendency to œdema and ascites, belong to a more advanced stage, but not to the last, which was characterised by extreme emaciation, supine posture, involuntary stools, a thin reddish secretion flowing without check, sordies on the teeth, hickup, tendency to delirium, difficulty of swallowing, and a pulse like a thread."---Cheyne, p. 23.

* "Johnson p. 354."

At one time a majority of Dr. Cheyne's patients died, who had been ill more than six or seven days, and of those who were emaciated scarcely one recovered."

"Dysentery was productive of several forms of dropsy,—ascites, and anasarca in particular; and it is worthy of remark, that a swelling occurred in several of the patients, both males and females, resembling the phlegmasia dolens in all respects but in its connexion with parturition. In one or two cases symptoms of hydrothorax were observed."---Rep. 25.

There was sometimes a translation of disease to the lungs, with a degree of effusion in the cavity of the pleura, and blood in the air cells, evinced by oppressed respiration, pain in the chest, a short teazing cough, scanty mucous expectoration, constant jactitation, small pulse, colliquative perspirations, and great prostration of strength.

The dissections made at the Whitworth Hospital presented the diseased appearances "chiefly in their commencement, or after the morbid action had run its course." Death scarcely ever took place while the disease was in its intermediate stages. The ascertaining of the symptoms therefore which belong to the commencement of the ulcerative process must be ascertained by succeeding pathologists.

"The mucous membrane of the stomach, and small intestines, sometimes presented an inflamed appearance, which, in general, became more remarkable as we approached to the great intestines; then ulceration began to show itself, at first superficial, afterward laying bare the muscular fibres of the intestines; the ulcerations became larger, more numerous, and deep, as the rectum was approached; but it was remarked that the last three or four inches of the rectum were sometimes pretty sound. The peritoneum was found less diseased than might have been expected." 29.

The deaths which took place in an early stage of dysentery, were from fever or some other fatal disease. When this was the case, "a peculiar state of the mucous membrane of the stomach and intestines was noted."

"This membrane was found of a more or less deep red or purple colour; it was rather thickened, soft and pulpy; the least violence destroyed the continuity of the surface, which had lost its healthy smoothness, was uneven, and not unfrequently rough and granulated, the blood vessels being enlarged and loaded with blood: where the alteration in texture was inconsiderable, there were numerous spots of a deep red colour, which at first resembled extravasations, but, on close examination, seemed to be blood vessels, ramifying in an arborescent form, and connected with veins. The stomach contained a viscid mucus, firmly adhering to its coats, and mixed with an opaque yellow, or whitish matter; the contents of the large intestines were fluid, and of a yellowish green colour."---Cheyne, p. 29.

Dr. Cheyne relates an interesting case of complicated fever and pneumonia, where dysentery supervened four days before the patient's death.

"She had a lancinating pain in the abdomen, tormina and discharge of blood by stool; symptoms, which were relieved by castor oil, followed by a compound powder of ipecacuanha. The most interesting part of the dissection was the display of a highly vascular state of the whole of the mucous membrane of the intestines, without ulceration or erosion; proving, that a free discharge of blood may from this, as from other mucous surfaces, take place without previous ulceration or erosion." 30.

Three or four other cases, presenting *nearly* similar appearances, are related; and they are extremely valuable, since dissections in the early stages of dysentery are very rare, for very obvious reasons. It is only indeed during epidemics like this, where dysentery forms one of its complications, that such dissections can be got at. Dr. Cheyne caused preparations to be made from the intestines of dysenteric patients, and these are preserved in the Whitworth Hospital. They may be divided into two classes—those in which the intestine is thickened, and those in which it is not. In the first class may be seen specimens of the mucous membrane increased in vascularity, without abrasion or ulceration—the same membrane covered with coagulable lymph—the membrane simply abraded, its epidermoid coat removed—the membrane ulcerated, the intervening portions natural—and, lastly, the mucous membrane partly ulcerated, partly covered with coagulable lymph. In the second class, where there is no thickening, we have the following varieties. The mucous membrane simply abraded—the same ulcerated, the intervening spaces natural—the mucous membrane rugous and ulcerated—the same ulcerated and filamentous, hanging in shreds as if sphacelated—the membrane partly ulcerated, partly removed, exposing the muscular coat. "In many of these preparations the mucous membrane when not eroded or ulcerated, is covered with an exudation of coagulable lymph."

In a majority of cases the liver was apparently sound in structure; but in a good many instances remarkably otherwise. "In a considerable number of bodies it was in a state of great sanguineous congestion."

Dr. Cheyne properly remarks, that it is a great error to suppose that a disease admits of only one mode of treatment. In the course of the season, the practice of the Whitworth Hospital underwent several changes—their confidence in certain methods of cure fluctuated, being sometimes weakened

by experience, " and then restored by experience still more extensive."

" For example, the treatment by means of mercury did not succeed so generally as I expected. Calomel and ipecacuan; the blue pill and ipecacuan; doses of five grains of calomel and half a grain of opium, at stated intervals of four or six hours; larger doses of the same medicines, a scruple of calomel and two grains of opium—all these methods often failed when the disease was established, not only with me, but with some of my colleagues who treated the disease in the fever wards; and yet I have no doubt that the mercurial treatment is entitled to confidence, although probably not to the same degree of confidence that it is in other climates." 41.

We recommend the following passage to the serious consideration of those of our brethren who have not witnessed dysentery on a large scale.

" The doctrine pretty generally taught with respect to the nature and treatment of dysentery did not apply to the form of that disease, which is under consideration. We are told that, before dysentery has long continued, the fæces are formed into compacted masses, and that the patient complains of a load in his intestines, with which they feel oppressed. The only complaint of this kind, which I heard, was of a sensation, as if the lower part of the intestines had not fully discharged its contents, producing tenesmus. We are directed to give purgatives, until the load felt by the patient shall have been removed, and we are told that purgatives have not performed their office until, by removing scybala, the cause of this sensation is removed, a rule which it is plain cannot apply to a disease, in which there are no scybala. Indeed that theory of the disease, which supposes the symptoms of dysentery to depend upon an accumulation of indurated fæces, will appear in this, as in other cases, that one of the effects of disease has been mistaken for its cause. In many instances purgative medicines seemed greatly to increase all the sufferings of the patient, and castor oil, the cathartic to which a preference is usually given, frequently roused the dormant griping pain, so that it appeared that its right to be preferred in this disease, now almost prescriptive, had been too hastily conceded. Finally, we are often cautioned against venesection, which was certainly the remedy the least equivocal in its effects, the most uniformly useful of any which we employed in the Whitworth Hospital." 42.

Of the cases not attended with much fever or pain, and which were admitted during the first few days of the disease, a purgative early in the morning, ten grains of Dover's powder early in the afternoon, and the same at bed-time, with low diet, restored many to health. " But in several of these cases the disease *spontaneously ended*, as the concurrent fever often did, in free perspiration." This consideration, as our author wisely observes, was calculated to " reduce reliance

on this plan within just limits." When the disease assumed a more inflexible character, and was attended with considerable pyrexia, tenderness of the abdomen, muco-sanguineous stools, tomina, and tenesmus, our author would prefer to the mercurial treatment, the old proceeding of venesection, saline purgatives, warm bath in the evening, and lastly an anodyne diaphoretic at bed-time.

When with pyrexia, the stools consisted chiefly of bloody mucus, and the abdomen was very tender, blood-letting was never omitted, and the symptoms were greatly mitigated thereby.

"But there were cases requiring a procedure still more decided; cases wherein the disease had resisted the foregoing method so long as to excite an apprehension of extensive ulceration, or in which it began with unusual violence, or in which, after proceeding moderately for a time, symptoms of great danger suddenly arose; as for instance, intolerance of the slightest pressure, agonizing pain, unceasing tenesmus, great pyrexia; in these cases the method recommended by some of the late writers on tropical diseases* was used with advantage. In the course of a single hour the patient has been largely blooded, has taken two grains of opium and a scruple of calomel, has had the warm bath, and been swathed in flannel,† by which means we have obtained breathing time to pursue our plans more deliberately. Were the same cases again to be placed under my care, I would not hesitate to prescribe opium in doses of four or five grains, as it was the opium chiefly which seemed to me to arrest the progress of the inflammation, and whatever in such a case procured respite for the patient from agony, sometimes proved of permanent benefit. After the large dose of calomel and opium, calomel in doses of five grains, with half a grain of opium, every third or fourth hour, was given till it produced ptyalism; as soon as the mercurial influence was apparent from the state of the mouth, the mercurial was laid aside, and a mixture with balsam of capivi‡ was given every fourth or sixth hour, from which the greatest relief was often obtained; the fæces, from being of a bottle green, and mixed with mucus (the effect of the calomel and opium) and passed with tenesmus, became more natural in appearance, and were voided less frequently; the patient considered himself cured, and in many cases his recovery followed, although not without interruptions, requiring various changes in the form of the anodyne; such changes, it may be observed, were generally productive of benefit; thus the chalk julep, or catechu mixture, with laudanum, when the capivi draught lost its effect, were substituted. It results from a consideration of the cases in my possession that venesection, calomel, and opium, followed by the capivi mixture, with farinaceous diet, proved more

---

* See Dr. Johnson's work. † See Mr. Dewar's work.
‡ See Dr. Pemberton's work.

successful than any other method which was adopted in the severest cases; yet it often lamentably failed, of which sufficient evidence will be found in the table of unsuccessful cases. It ought not to be forgotten, that when the skin was restored to a natural state by the mercury, the case generally proceeded favourably." 45.

Although mercury failed in many cases, and was, as might be expected, injurious in the ulcerative stages of the disease, yet venesection was beneficial not only at the beginning of the disease, but even after it was supposed that ulceration had commenced.

At one period in the Whitworth Hospital, when the medical officers began to lose confidence in every measure, not even excepting the mercurial treatment, a physician proposed cream of tartar as a remedy that would cure all cases of the disease. Although little was expected from such a measure, yet, in such desperate circumstances, it was fairly and fully tried—by the physician himself. The dose to an adult was half an ounce of the powder finely levigated every fourth or sixth hour. It was soon discovered that this medicine "failed in many instances," but it was admitted "that some patients who took it were restored to health, who, Dr. C. thinks, would have sunk under any of the modes of treatment then in use." The "white powders," therefore, became rather a favourite in the hospital thenceforward. In some it occasioned much distress, and several individuals refused to take it. "But when persevered in, it often brought down bile, and then by giving it only once or twice in the day, and alternating with it Dover's powder, the capivi, or chalk mixture, and using the baths, the cure was completed." We have remarked that, in almost all cases of dysentery, the *function* of the liver is torpid or impeded—at least the biliary secretion appears exceedingly scanty. This, we conceive, is an important feature in the pathology of the disease, and was not till lately known, or at least promulgated. We are happy in having the corroborative testimony of such a man as Dr. Cheyne on this point.

"In the property of bringing down bile, I think it must be admitted that the cream of tartar excels most other purgative medicines, and in this way its efficacy in dysentery may probably be explained, for that the suspension of the biliary discharge is a very important part of the disease few will deny, who have seen the great relief which sometimes, in this disease, follows a discharge of bile." 49.

Castor oil, so generally beneficial in idiopathic dysentey of the hotter climates, did not, as was before observed, agree with patients in the epidemic under review. But when half

an ounce of the oil was combined with ten or twelve drops of laudanum, the combination was found to be an invaluable medicine. When castor oil also was combined with the rectified oil of turpentine, it operated with less pain than when given without the latter medicine. "This, which is also a valuable combination, borrowed from puerperal practice, and much used in Dublin, sometimes effectually reduced that tumefaction of the belly which often so much distressed the patient." Injections, composed of superacetate of lead and opium, in solution, ranked high in the Whitworth Hospital. Dr. Barker has given, with success, this combination, internally in dysentery. For the cases and dissections, thirty in number, we must refer to the volume itself.

When we consider that the disease in question was complicated with, indeed, we might say, it was a *form* of, the prevailing epidemic fever—that it occurred among the lower orders of Dublin, notorious for squalid poverty, filth, and intemperance, we ought not to wonder at the occasional want of success attending some measures found highly efficacious under other circumstances—especially among men in the prime of life, in our army and navy, where the disease was instantly recognized on its first appearance,and treated vigorously. Still, with all the disadvantages attendant on Dr. Cheyne's patients, his report goes, in the main, to confirm what has been inculcated by our naval and military practitioners, during the last ten or fifteen years, in respect to dysentery. The interrupted or defective function of the liver, the corresponding state of the skin, the non-appearance of scybalæ, the melioration produced by an increase of the biliary secretion, the safety and utility of bleeding, and the general efficacy of opium and mercury, are all substantiated by the said report. All we wonder at is, that the measures did not more frequently fail, under such circumstances, than actually happened.

Dr. Cheyne has appended a supplement, containing an account of dysentery, as it appeared in the 79th regiment, at Limerick, in the year 1821, drawn up by Dr. Perston, assistant surgeon of that corps. The prominent feature in this dysentery was the following:—

"The liver was invariably deeply engaged in disease; in general considerably enlarged; and its whole structure apparently destroyed. In two cases the surface was studded with large yellowish white spots, which, on cutting into them, were found to contain pus, and yellow purulent matter was found in distinct cells throughout its whole extent. The concave surface commonly presented a livid aspect, and was indurated. The gall bladder usually nearly empty." 89.

Dr. Perston used active depletory means, and " in all the severe forms of the disease, after premising general evacuations, and when the inflammation was checked, mercurial frictions were ordered over the region of the liver." " I was led," says Dr. P. " to try the effects of the remedy, in consequence of having witnessed that the structure of that viscus was more or less destroyed in every fatal case of this disease, though it had been specially remarked, that no feeling of pain—not even a sense of weight or uneasiness had been referred to that organ by the patient." Although, in several instances, our author attributes the recovery of his patients to these frictions, yet he did not find them so extensively beneficial as he had anticipated. We wonder he saved a single patient; for where the biliary organ was so generally implicated in structure as in this dysentery, no time should have been lost, *from the very beginning*, in the introduction of mercury by the mouth as well as by the skin. It is thus that remedies are frequently injured in reputation by the injudicious modes of their administration! We cannot take leave of Dr. Cheyne without expressing our great esteem for his candour, zeal, and ability in the prosecution of all his professional researches.

We now come to the second work at the head of the article. Dr. O'Brien has gone more formally to work than was necessary, by inquiring into the definition, history, and ancient literature of dysentery. There was surely no need for this, in order to give the public an account of a recent epidemic. But too many writers fall into this practice. Being rather undecided as to contagion, Dr. O'Brien thinks that Cullen's definition ought to have " aliquando" introduced before the adjective " contagiosa," which would render it, he thinks, unobjectionable. Our author, however, has never seen any instance where the disease was unequivocally propagated by contagion. He supposes it possible that when the disease is epidemic in camps, ships, crowded hospitals, or populous cities, " the attendant fever may assume a malignant and typhoid character, and the disease become contagious." To us it appears evident that *dysentery* is not contagious; but that *fever*, having a determination to the *bowels*, may be so, the same as a fever with a determination to the lungs or brain.

In respect to the *causes* of the late epidemic dysentery in Ireland, our author has reason to consider them the same as those which gave origin to the epidemic fever The seasons were wet and inclement, the crops had failed—and hunger and wretchedness prevailed. The consequence was disease in various shapes.

"In this state of things the dysentery appeared in Dublin, in 1817, and has since continued, with some short intermissions, to maintain its ground, to an extent unknown for the last fifty years. The predisposing and exciting causes are clearly pointed out, in the extraordinary combination of physical evils above described. The visible agents in operation, during the prevalence of this malady, were famine, and want of every description, which, probably, operated as predisposing causes; and secondly, cold, excessive moisture, and unwholesome food; which appear to have been the exciting causes." *O'Brien*, p. 18.

Our author states that he has not been able to trace that connexion betwen dysentery and disease of the liver so much insisted on by some writers on tropical diseases. Dr. O'Brien is led into the same misapprehension that many others have been led into, by confounding disordered *function* with diseased *structure*. The best writers on tropical dysentery have observed *impaired function* of the liver in the dysentery of hot climates, and we appeal to Cheyne's and to Perston's papers just reviewed, for a corroboration of the same in the dysentery of Ireland. Our author offers a curious reason why the liver is not concerned in dysentery—"neither are the discharges tinged with bile, but, on the contrary, the disease seems to be attended with an opposite condition of the liver, or a *deficient secretion* of that fluid." If this be not functional disorder of the biliary organ, we know not what is. It is the precise functional disorder too which is insisted on as obtaining in tropical dysentery, so much has Dr. O'Brien misunderstood the writers in question. He has himself supplied the proof of their accuracy of observation. Into another error has Dr. O'Brien fallen, namely, that cholera is produced by a redundant secretion of bile;—an error that has been abundantly exposed of late years, as our readers well know.

"The salutary agency of mercury, in dysentery, seems to have strengthened the theory of its hepatic origin. But, it must be recollected that mercury exercises a powerful influence over the cutaneous and mucous surfaces also, restoring them to their healthy state, with a more rapid and evident agency than perhaps any other medicine: its power in the cure of cutaneous diseases, and in the inflammation of the mucous membrane of the larynx, and, in fine, its general action as a diaphoretic, sufficiently prove its direct action on those surfaces." *O'Brien*, 22.

As to structural disease of the liver, even that was pretty frequently observed in the late epidemic, according to our author's own observations. The *facts* being thus ascertained, we have no objection to our author's *explanation*, as thus propounded:—

"There is no doubt, however, of the coexistence of dysentery

and disease of the liver in a multitude of instances; and the most rational explanation which suggests itself of the reciprocal influence of the two diseases on each other seems to be the following:—Persons labouring under previous disease of the liver, become affected with debility and turgescence of the mucous coat of the intestines, in consequence of an impeded and repelled circulation in the diseased liver, which more readily disposes them to fall into the dysenteric state, on the application of the exciting causes formerly mentioned. In such cases disease of the liver must be considered merely as a predisposing cause; and that it is frequently one there can be no doubt." 22.

The remote causes, Dr. O'Brien, in common, with the best observers, attributes to "sudden variations of temperature," acting on organs predisposed to disease by intemperance and unwholesome food. The occult state of the air, so often mentioned but never yet explained, our author does not deny, but thinks we had better leave this epidemic constitution out of the question, and confine ourselves to those causes that are obvious to the senses. To this it may be objected, that the obvious causes are not always adequate to the explanation, and then the mind reverts necessarily to some hidden agency.

"However authors have differed concerning the remote causes of dysentery, there seem no grounds for doubting that its proximate cause is inflammation of various degrees of intensity, affecting the mucous membrane of the intestines, chiefly the large intestines. This fact has been amply proved by dissection, by which either inflammation or some of its sequelæ, as stricture, ulceration or thickening of the mucous membrane have been invariably detected. A close analogy may be traced between catarrh and dysentery, and the production of both diseases may be accounted for in a similar manner. It is a long established principle in pathology, that all those causes which produce a suppression of the cutaneous perspiration are capable of generating catarrh. The principal of them is cold, by which the perspiration from the skin being checked, is thrown inwardly on the mucous membrane. It must be remembered that the skin and mucous membrane are continuous surfaces, and readily sympathize with each other. Hence the rapid translation of the excretions from one surface to the other, and their reciprocal action in a state of disease. The afflux of blood to the mucous membrane produces in that organ an inflammation of greater or less activity, according to the violence of the exciting causes, and thus the phenomena of catarrh arise. On the same principle may the phenomena of dysentery be explained, making allowance for the different nature and uses of the organ affected in this latter disease. It has been generally observed by practical writers, that the period most favourable for the production of dysentery is when a cold moist autumn succeeds a warm dry summer. Under such circumstances, it is probable that the skin acquires, from excess of heat and transpiration, a morbid state, which renders it more sensible to the succeeding winter's cold. If cold be

then applied primarily to the lower part of the body, we can readily trace the connexion between cause and effect, and the mode of operation, if dysentery be the consequence

"When, under such circumstances, some important viscus, as the liver, happen to be diseased, and its circulation obstructed, the passage of the blood through the vena portæ is impeded, and that fluid thrown back on the mesenteric veins and arteries, causes a kind of habitual turgescence, or sub-inflammation in those vessels. If, in this state of things, the cutaneous perspiration be interrupted by cold applied to the abdominal region, the balance of the circulation will be still further deranged. The circulation will diminish on the surface, and increase in the cavities, and by a uniform law of the animal economy, the loss of the healthy discharge on the surface will be compensated by a morbid one in the interior. If the serous membrane be the weaker organ, dropsy may be the result; if the mucous, dysentery." 30.

Dr. O'Brien here takes an opportunity of differing from Dr. Johnson in respect to the proximate cause of dysentery. There is not, however, so much real difference of opinion between them as Dr. O'Brien imagines. Dr. Johnson does not deny that a state of inflammation is an early condition in dysentery, but he contends that inflammation is not the *first* link in the chain of morbid action. He maintains, for instance, that the functions of the liver, and glandular viscera of the abdomen are disturbed—that the balance of the circulation and of the excitability is next thrown on the mucous membrane of the intestines, where a state of *irritation* first obtains, and if that be not quickly removed, a state of inflammation, and ultimately ulceration ensues. This attempt of Dr. Johnson's to trace out those phenomena of dysentery which precede actual inflammation has been, by several, misconstrued into a denial of the existence of inflammation in the disease. Certainly it is Dr. Johnson's belief that the inflammation is a sequence or consequence of other previous morbid states, irritation for instance, and therefore can hardly be called with strict propriety the proximate cause of the disease. As, however, it universally obtains when the disease has become well established, there is no objection, in a practical point of view, to consider inflammation of the mucous membrane as its proximate cause.

Dr. O'Brien's description of the symptoms of dysentery need not be entered on here. We observe that he still believes in the existence of scybalæ, in dysentery, though he acknowledges that they cannot be considered in the light of one of the causes of the disease, and that he has never observed them on dissection. That indurated fæces may happen to be lodging in the cells of the colon when dysentery

attacks a patient, and that they may be dislodged and discharged in the course of the disease, there can be no manner of doubt; but that to this accidental circumstance should be attached any importance, we are inclined to deny.

From the principles laid down by our author, (the inflammatory,) it follows, of course, that the antiphlogistic treatment must form the basis of the cure.

"In the execution of this plan the two great objects which it is necessary to keep in view are -to restore the functions of the skin, and to unload the mesenteric system of its excess of blood. That blood-letting is a remedy calculated to fulfil these indications, but particularly the latter, there can be no doubt; in the first stage of dysentery I conceive it may be administered with as much confidence, and to as great an extent as in most of the phlegmasiæ. In almost all the cases of dysentery which I had an opportunity of treating in the early stages of the disease, within the last three or four years, I have employed venesection freely, and have uniformly witnessed its good effects in mitigating the tormina, lessening the frequency of the discharges, and allaying febrile excitement." 43.

Where general bleeding dare not be carried farther, the local bleeding by leeches is recommended. It is rather curious that, if dysentery consist in neither more nor less than inflammation of the mucous membrane of the intestines, venesection should not be able to cure it, as it unquestionably has cured many other phlogoses. Let us hear Dr. O'Brien's sentiments.

"By the opinion which I have stated in favour of this remedy, I by no means wish to set it up as an infallible cure for this disease; on the contrary, I much doubt if it has ever succeeded by itself, or if it is capable of succeeding in curing the disease, *as it often succeeds in others of the phlegmasiæ* It appears to me that blood-letting ought to be considered only in the light of a useful auxiliary to the other modes of depletion hereafter to be mentioned, and as applicable principally if not solely, at least in its general form, to the early stages of the disease." 44.

The next remedies on our author's list are "sudorifics and purgatives combined with opium."

"The mercurial salts, James's powders, and Dover's powders, are the principal medicines of this class applicable to the cure of dysentery: four or five grains of calomel, with as much James's powder, and a grain of opium, may be given every third or fourth hour, or even more frequently, according to the exigence of the case. This plan being pursued for the first twenty-four hours of the curation, ought to be succeeded in the next twenty-four by the purgative plan. With respect to this, however, no fixed rule can be laid down; in very urgent cases I would prefer continuing the medicines

above-mentioned, and exciting the mercurial action as rapidly as possible, rather than waiting for the more doubtful and tardy benefit to be derived from purgatives. The purgative which I most frequently employ is the old fashioned one of castor oil and tincture of rhubarb. This purgative is certainly preferred by most patients, and appears to operate with less irritation than the saline purgatives. Occasionally a few drops of the tincture of opium are added to lessen its irritation." 45.

The author we believe to be correct in asserting that the combination of calomel and opium is inferior in efficacy to that into which antimonial powder enters. The latter combination, viz. "calomel, opium, and antimonial powder," Dr. O'Brien "has no hesitation in pronouncing the most powerful anti-dysenteric remedy we possess in the dysentery of this country;" and, he might have added, of most other countries too. Speaking of the various specifics which have been lauded in dysentery, our author remarks—

"The truth is, no single medicine deserves the name of a specific in this disease; but of all known remedies, mercury certainly approaches nearest to that character, and possesses the most decided control over this disease Its beneficial agency appears to be exerted in restoring the functions of the liver, and promoting the mesenteric circulation in the first instance, and secondly, in restoring the healthy action of the skin itself. That it is adequate to effect important changes in the skin, will readily appear when we recollect its powerful influence in certain cutaneous diseases. In many instances it exerts its salutary agency before it reaches the point of salivation; in others the signs of amendment are delayed until it has arrived at this point, immediately after which, the dysenteric symptoms subside and convalescence commences." 47.

It is hardly necessary to remark that even this remedy will not always be successful, in all times, places, and stages of the disease. "I think," says Dr. O'Brien, "I may venture to affirm, however, that, if timely administered, it will succeed in a very great majority of cases. The failures which take place in this medicine, arise partly from the late period of the disease at which it is administered—a circumstance which must frequently occur in hospital practice."

Dr. O'Brien conceives that emetics have *undeservedly* fallen into disuse since the mercurial plan has become fashionable. This, we think, is true. Emetics are very powerful means of determining to the surface, and restoring the lost balance of the circulation. Sudorifics are universally allowed to be important remedies in this disease. The warm bath is obviously indicated. Our author makes some judicious observations on flannel bandages, counter-irritants, opiate injections, the mineral acids, &c. for which we must refer to the work itself.

Chronic Dysentery. Under this head Dr. O'Brien includes all those cases protracted beyond a duration of five or six weeks, and which are generally unaccompanied by fever, unless of the hectic kind. This form of the disease, which is usually, but not always, a sequel of the acute, is the more intractable of the two, and by far the most frequently met with in hospital practice. "The most numerous sufferers, indeed, from chronic dysentery, are the aged and infirm who have previously suffered from diseases of the liver and other abdominal viscera."

"The symptoms of chronic dysentery vary in degree, according to the violence of the previous disease, and the extent of the structural injury sustained by the intestines from a simple relaxed state of the bowels, producing diarrhœa to a permanent ulceration, continually pouring forth purulent matter. In the milder cases the least exposure to wet and cold, or the slightest errors in diet, are succeeded by a diarrhœa, accompanied by gripes and tenesmus. In the more severe cases, the causes just mentioned are succeeded by a flux nearly constant, at least recurring at short intervals, of a fetid sanious matter, resembling the washings of raw flesh. On inspecting the discharges in those cases attentively, streaks of pus are evidently discernible on the surface of the ichorous matter discharged, which contains little of the substance, or even smell of natural fæces. In some cases the discharges are as black as pitch, in others they are in the opposite extreme of a dirty white colour, resembling the coagulated mucus of the nose, or dirty cream. This last appearance is characteristic of the last stage of very protracted dysenteries." 58.

This deplorable state will sometimes last for months, the patient gradually wasting away as in the last stage of phthisis pulmonalis—indeed, this disease might almost be termed "phthisis intestinalis." The appetite generally continues, and is sometimes ravenous; but indulgence in food always aggravates the complaint. In most cases where the disease had continued long, in our author's experience, the liver was found affected extensively.

Morbid Anatomy of Dysentery. The structural derangements found on dissection have been, of course, the products of inflammation, and inculcate the important lesson that our exertions should be directed to the prevention or subjugation of this state. In all the cases which Dr. O'Brien examined, one or other of the following appearances presented—ulceration or abrasion of the mucous membrane of the intestines—the colon, in every instance, thicker and more contracted than natural through its whole extent, but particularly at its lower flexure, where it bends over the ilium to form the rectum. Our author did not find the small intestines ulcerated, "but

patches of a deep red colour were generally discovered here and there, especially on the ileum."

"In one case, the whole of the intestines presented a compact mass of adhesions, the small intestines adhering, in several places, to the peritoneum. In this case, the transverse arch of the colon, the duodenum, and the stomach, were firmly united together by adhesions. In this case also, the liver, the middle lobe of which extended two inches below the ensiform cartilage, was converted into a mass of tubercles of the large kind." 63.

In a majority of instances the liver was unaffected, the large intestines being the seat of the disease. The gall-bladder was always found distended with deep brown or dark yellow bile. "The mucous membrane (of the large intestines) was either obliterated or converted into a pulpy, bloody slime, which, on being scraped off, presented an uneven surface, studded with small indurations, which no doubt were the mucous glands."

Treatment of Chronic Dysentery. The most essential part of this consists undoubtedly in dietetics, which ought to be of the mildest and most bland description. The experience of our author verifies that of Pringle, in respect to the utility of a milk diet. "The patient labouring under chronic dysentery should be placed altogether on a diet of milk and vegetable mucilage, as rice, arrow-root, sago, salep, &c. Flannels next the skin are absolutely necessary—the warm bath twice a week, using the flesh brush afterward—a change to a warmer climate, if the patient live in this country; and to a colder, if a resident between the tropics.

Treatment. Where the patient is able to bear the operation of an emetic, at the beginning, Dr. O'Brien thinks it advisable to administer one; but if contra-indicated, then the bowels are to be unloaded of their acrid contents by gentle laxatives.

"A draught composed of castor oil, tincture of rhubarb, balsam of Copaiba, and a few drops of tincture of opium, has been generally directed by me under those circumstances; the purgative being repeated at longer or shorter intervals, as the case might seem to require." 71.

Dr. O'Brien's principal efforts have been directed to restore the functions of the skin and the abdominal viscera. With this view, sudorifics, combined with opium and a gentle mercurial alterative, were exhibited.

"The benefit of a slight alterative course of mercury will be apparent, when it is recollected how frequently disease of the liver is combined with inflammation and ulceration of the internal surface

of the intestines in chronic dysentery. The former materially aggravates the latter, and forms a part of the general disease. Every measure, therefore, which tends to produce a healthy biliary secretion very considerably forwards the cure." 71.

These anodyne mercurial diaphoretics being continued a few days, are omitted, and alternated with astringents. "In slight cases, the mistura cretæ, with tincture of opium and tincture of catechu or kino (the common astringent mixture of hospitals,) answers very well." In severer cases, our author has used a solution of alum and sulphate of zinc, in cinnamon water, with tincture of opium. Oil of turpentine was tried, without producing any good effect. The patients described it as producing racking pains in the bowels, and giving no respite from the disease. The balsam copaiba, however, appears to have proved a valuable remedy; and the best medicine for correcting its nauseous taste was found to be milk, with which it mixes by means of sugar. If a few drops of any essential oil be added, the mixture is rendered still less disagreeable. The superacetate of lead did not succeed in our author's hands. The arsenical solution in two or three cases seemed to act as a powerful tonic to the system. In the following passage we agree with our author, and can vouch, from some experience, for its truth.

"Of all the remedies which have been employed for the cure of chronic dysentery, perhaps opium is the most universally remedial, and that which may be relied on with most certainty, as affording relief to the sufferers from this disease. In most of the anti-dysenteric compounds of former and modern times, it makes an important ingredient, and is the only efficacious one in many of them. In many instances there is little doubt but it has effected a cure, and in those where it has failed, it has considerably prolonged life, or soothed the bed of death." 75.

For the selected cases and dissections we must refer to Dr. O'Brien's work.

We may just say a few words on chronic dysentery before we close this article. We have seen a good deal of the disease, and we have personally felt it. The main pillar of the treatment is *rigid abstinence*. In nine cases out of ten, where such organic disease has not taken place as renders all remedies abortive, we verily believe that the patient might cure himself of chronic dysentery by a resolute system of starvation and perfect quietude. If a man were to live on one small meal of farinaceous food in the day, and keep to his bed, he would do more than medicine can effect, without this precaution. But medicine may be of great assistance. A couple of grains of blue pill every night, with three or four of antimonial powder, and one or two of opium, will be

very serviceable, taking a spoonful of the cretaceous mixture with opium or aromatics, *post singulam sedem liquidam*, for this is the only rule that can be laid down. Astringents we have often employed—and often with advantage; but if there be any hepatic disease, we would advise caution in their exhibition.

We have to return thanks to Drs. Cheyne and O'Brien, for their valuable and candid observations. We have enabled our brethren to judge of their merits by the ample analysis now laid before them.

IX.

The Study of Medicine. By John Mason Good, M. D. F. R. S.

[Continued from No. 12, page 832.]

The next subject which presents itself in the second volume, is the 4th order of the 3d class, Hæmatica, entitled Dysthetica, or Cachexies—a morbid state of the blood or blood-vessels, alone, or connected with a morbid state of the fluids. This order is divided into 9 genera, viz. Plethora, Hæmorrhagia, Marasmus, Struma, Carcinus, (cancer) Lues, Elephantiasis, Bucnemia, (tumid leg) Catacausis, (spontaneous combustion) Porphyra, (scurvy) Exangia, (vascular divarication) Gangrena, ulcus.

This is a pretty plentiful bill of fare, and may well furnish food for reflection.

Our author justly wonders that plethora is so seldom ranked as a disease, and so seldom treated of in a course of medical instruction. Assuredly it is a phenomenon that very frequently crosses our path in practice—perhaps more frequently than almost any other. Dr. Good properly enough divides plethora into two kinds—sanguineous and serous—the first more common to men, the second to women—the first characterized by a full, strong, rebounding pulse, firm and vigorous muscular fibres—the second by full, but frequent and feeble pulse, languid vital actions, smooth and soft skin, plump but inexpressive figure. In the sanguineous plethora, slight excitements produce congestions in the larger vessels or organs. The head feels heavy—the sleep is disturbed—the respiration is laborious. If fever arise it will assume the inflammatory type, and slight excesses endanger apoplexy.

The treatment of this species is well known—abstinence and depletion.

In the serous plethora there is little vigour or activity of any kind, and whatever is eliminated is suffered to accumulate;—hence costiveness is a common symptom—the ankles are cold and œdematous—fat accumulates in the cellular membrane—there is inertness of mind as well as body—every exertion is a fatigue, and the countenance though plump is without expression. The following are our author's therapeutics in this species of plethora. It is defective in eccoprotics and alterative aperients, which open the secretions and relieve the plethora. In other respects the advice is judicious.

"In this species, as in the last, we are compelled to begin with cupping or the use of the lancet. But, though the distended and overflowing vessels demand an abstraction of blood, it should never be forgotten that the relief hereby afforded is only temporary; and that, as the disease is, in this case, an effect of debility, we are directly adding to the cause as often as we have recourse to the lancet. Our leading object should be to give tone to the relaxed fibres; and to take off the morbid tendency to the production of a surplus of blood by counteracting the irritability which gives rise to it. Our attack must be made upon the entire habit, which as far as possible should undergo a total change. The diet should be nutritious, but perfectly simple, and the meals less frequent or less abundant than usual; the sedentary life should give way to exercise, at first easy and gentle, but by degrees more active, and of longer extent or duration. Tonics, as bitters, astringents and sea-bathing, may now be employed with advantage; and the muscular fibres will become firmer as the cellular substance loses its bulk.

"The whole, however, must be the work of time; for although in morals it is a wholesome principle that bad habits cannot too speedily be thrown off, it is a mischievous doctrine in medicine. Health being the middle term between excess and deficiency, every day is giving us a proof that where either of these extremes has become habitual, the system can only be let up or let down by slow degrees so as to reach and rest at the middle point with certainty, and without inconvenience. Professor Monro has furnished us with several very striking examples of this fact; and particularly among those who had acquired a habit of drinking very large quantities of spirituous potation. A man of this description who had broken both bones of one leg, and was put, for a more speedy recovery, upon a diet of milk and water and water-gruel, was hereby thrown into a low fever with an intermitting pulse, twitching tendons, and delirium; during which he got out of bed and kicked away the box in which his leg was confined. A by-stander and friend of the patient's of the same irregular habit, ventured to tell the Professor that he would certainly kill him if he did not allow him ale and brandy; since, for several years antecedently, he had been accustomed to both these as his common drink; a little of each was,

in consequence, permitted him; but the patient's friends did not tie him down to this little; for extending the grant of an inch to an ell, they instantly gave the man a Scot's quart of ale, and a gill of brandy, which was his usual allowance for the evening, he slept well and sound; the next morning was free from delirium and fever; and, by a perseverance in the same regimen, obtained a speedy cure without the least accident." 685.

Hæmorrhage is divided, as usual, into entonic and atonic, or active and passive; and some interesting remarks are made by our author on the vacillations of balance in the circulation at different periods of our existence.

In the article hæmoptysis, no notice is taken of the pathological state of the lungs, nor are the interesting researches of Laennec, or indeed of any of the recent pathologists at all adverted to. After premising venesection, the following is the methodus medendi recommended by Dr. Good.

"In general, however, we shall find it as successful and far less distressing to employ mild aperients and sedatives. The first, and particularly neutral salts, are alone of great benefit, and their action should be steadily maintained. Sedatives are of still higher importance, and especially those that reduce the tone of the circulation, as nitre and digitalis. The first, in about ten grains to a dose, should be given in iced water, and swallowed while dissolving; the dose being repeated every hour or two according to the urgency of the case. If there be much cough, it must be allayed by opium and blisters. Local astringents we cannot use, and general astringents are here manifestly counter-indicated, however useful in passive hemorrhage: though it should be recollected that when an active hemorrhage from the lungs is profuse and obstinate, the vessels lose their tone and fall into a passive state." 697.

We observe that the superacetate of lead, one of the most powerful medicines we possess in restraining active as well as passive hæmorrhage from the lungs, is not alluded to by our author, except in the atonic species. We can positively assert that in all hæmorrhages from the lungs, the superacetate is a valuable medicine, in conjunction with opium, and after venesection (in the active species) has checked the vascular tumult. Our author has properly brought the testimonies of Dr. Reynolds and Dr. Latham to the good effects of the remedy in question.

While treating of marasmus, our author very judiciously introduces an abstract of Sir Henry Halford's interesting description of the "climacteric disease," published originally in the College Transactions, and now well known to the profession. Dr. Good has also introduced a case in illustration from his own practice, that of the late Mr. Cobb, secretary to the East India Company. But we are sorry to see the

manner of relating this case. Of what interest is it to the pathologist or physician to be told, in a systematic work on medicine, of Mr. Cobb's "*extensive connexion and correspondence with the most brilliant and distinguished characters of the age that have figured either in political or fashionable life?*" What has the practitioner to do with Mr. Cobb's "fine taste and commanding talents?" Or, finally, what has science to do with a knowledge of the fact that—"His Royal Highness the Duke of Sussex was kind enough to accommodate our patient with the use of his easy and convenient sofa-carriage, for as long a period as he might choose?" We are astonished that a man of Dr. Good's taste and judgment would condescend to record such pompous inanities, or waste his own and his reader's time with things so much beneath the dignity of science.

On pulmonary consumption we did not expect that our author could throw any light—but we expected that Dr. Good would have brought down his information to the date of publication. This, however, he has not done—at least in an equable manner. Of the researches, for instance, of Laennec and Baron, he takes no notice, while the anti-phthisical "hurricane at Barbadoes," described by Sir Gilbert Blane, (though published long after Laennec and Baron,) and the "low vales of his own country," recommended in consumption by Mansford, are carefully placed before the reader's eye. This is passing strange!

On struma, cancer, and syphilis, we need not dwell. It is not a little remarkable that in a systematic view of the venereal disease, at the present day, no notice should be taken of the important investigations so long pursued by our army brethren in particular, respecting the possibility of curing the complaint without mercury. The following is the only passage that seems to have any reference to the subject. "Dr. J. Thomson, of the Depôt Hospital, Edinburgh Castle, has been so highly satisfied with its (sarsaparilla) antisyphilitic powers, that he has for some years relinquished the use of mercury altogether in favour of a new mode of practice which consists chiefly in the employment of sarsaparilla." In recompense for this unaccountable omission of one of the most interesting facts of the present century, Dr. Good enumerates the anti-venereal properties of the flammula jovis, the clematis recta, the lobilia syphilitica, and some other antiquated remedies!

On the subject of elephantiasis, our author is quite at home! as it has enabled him to thread the mazes of the Hebrew, Arabic, Egyptian, and Grecian languages, and, according to Dr. Bateman, "to disperse some of the thick mist in which

the translators have enveloped them." As far as our own dull optics are concerned, this *mist* of antiquity seems still as thick as that which Ossian so often describes on the "Mountains of Morven." If these erudite researches respecting the *name* of the disease threw any light on its nature or treatment, we should be among the first to fall down and worship their author. But as "fine words butter no parsnips," neither will Hebrew characters disperse leprous tubercles—and therefore we are just where we started in the midst of learned lore.

In the article "scurvy" our author accumulates most of the knowledge that has been acquired respecting the disease by our forefathers, predecessors, and a few of our cotemporaries. He does not seem to be sufficiently acquainted with a fact established by our naval medical brethren, and particularly Mr. Bampfield, that the want of fresh *animal food* is as much the cause of scurvy as the want of vegetables—and also that fresh animal food will cure the disease as quickly and effectually as fresh fruits and acids. We understand that genuine scurvy has lately been pretty generally produced in the Penitentiary establishment at Milbank, by an experiment of feeding its inhabitants almost entirely on vegetables and the farinaceæ. It is probable, however, that in this instance, the low and damp situation of the building, the incarcerated condition of its inmates, and the gloomy depressing passions inseparable from such a life, must have materially contributed, with the banyan fare, to the production of scurvy, hemeralopia, &c. with which the inhabitants have been scourged.

In the remaining species of this order, we see nothing to find fault with, and the author has evinced his usual industry, erudition, and judgment in the compilation.

The third volume opens with the 4th class—Neurotica, embracing four orders, viz. 1st order, Phrenica affecting the intellect—Osthetica, the sensation—Cinetica, the muscles—Systatica, affecting several or all of the sensorial powers. The physiological proem to this class, as might have been expected, requires and occupies a considerable space—54 pages of letter-press, and does great credit to the ingenious author. The three principal heads of this proem are—1st, The general nature of the brain, its ramifications, and substitutes—2d. The principle of sensation and motion—3d. The intellectual principle.

In touching on the last and most intricate subject of the three, Dr. Good has wisely confessed the ignorance under which we labour, and properly recommended to us investigations more suited to our limited capacities.

"Of the nature of the mind or soul itself, we know little beyond what REVELATION has informed us: we have no chemical test that can reach its essence; no glasses that can trace its mode of union with the brain; no analogies that can illustrate the rapidity of its movements. And hence the darkness that, in this respect, hung over the speculations of the Indian gymnosophists and the philosophers of Greece continues without abatement, and has equally resisted the labours of modern metaphysicians and physiologists. That the mind is an intelligent principle we know from nature; and that it is a principle endowed with immortality, and capable of existing after death in a state separate from the body, to which, however, it is hereafter to be reunited at a period when that which is now mortal shall put on immortality, and death itself be swallowed up in victory —we learn from the God of nature. And with such information we may well rest satisfied; and, with suitable modesty, direct our investigations to those lower branches of this mysterious subject that lie within the grasp of our reason." 33.

Our author cannot, however, drop this subject without observing that the discussion concerning the particular entity of the mind, seems to have been conducted with an undue degree of heat and confidence on all sides, considering our ignorance of the subject.

"Is the essence of the mind, soul, or spirit, material or immaterial? The question, at first sight, appears to be of the utmost importance and gravity; and to involve nothing less than a belief or disbelief, not indeed in its divine origin, but in its divine similitude and immortality. Yet I may venture to affirm, that there is no question which has been productive of so little satisfaction, or has laid a foundation for wider and wilder errors within the whole range of metaphysics. And for this plain and obvious reason, that we have no distinct ideas of the terms, and no settled premises to build upon. Corruptibility and incorruptibility, intelligent and unintelligent, organized and inorganic, are terms that convey distinct meanings to the mind, and impart modes of being that are within the scope of our comprehension. But materiality and immateriality are equally beyond our reach. Of the essence of matter we know nothing, and altogether as little of many of its more active qualities: insomuch that, amidst all the discoveries of the day, it still remains a controvertible position, whether light, heat, magnetism, and electricity are material substances, material properties, or things superadded to matter, and of a higher nature.

"If they be matter, gravity and ponderability are not essential properties of matter, though commonly so regarded. And if they be things superadded to matter, they are necessarily immaterial, and we cannot open our eyes without beholding innumerable proofs of material and immaterial bodies coexisting and acting in harmonious union through the entire frame of nature. But if we know nothing of the essence, and but little of the qualities of matter, of that common substrate which is diffused around us in every direction, and constitutes the whole of the visible world, what can we know of

what is immaterial? of the full meaning of a term that, in its strictest sense, comprehends all the rest of the immense fabric of actual and possible being; and includes, in its vast circumference, every essence and mode of essence of every other being, as well below as above the order of matter, and even that of the Deity himself?

"Shall we take the quality of extension as the line of separation between what is material and what is immaterial? This, indeed, is the general and favourite distinction brought forward in the present day; but it is a distinction founded on mere conjecture, and which will by no means stand the test of inquiry. Is space extended? every one admits it to be so. But is space material? is it body of any kind? Des Cartes, indeed, contended that it is body, and a material body; for he denied a vacuum, and asserted space to be a part of matter itself: but it is probable that there is not a single espouser of this opinion in the present day. If then extension belong equally to matter and to space, it cannot be contemplated as the peculiar and exclusive property of the former; and if we allow it to immaterial space, there is no reason why we should not allow it to immaterial spirit. If extension appertain not to the mind or thinking principle, the latter can have NO PLACE of existence; it can exist NO WHERE: for WHERE or PLACE is an idea that cannot be separated from the idea of extension. And hence, the metaphysical immaterialists of modern time freely admit that the mind has NO PLACE of existence; that it does exist NO WHERE; while, at the same time, they are compelled to allow that the immaterial Creator, or universal Spirit, exists EVERY WHERE, substantially as well as virtually." 35.

Such are the difficulties in which our ingenious author has involved the immaterialists. But it is not to be supposed that these difficulties are to be removed by adding to matter the quality of solidity in conjunction with that of extension. We shall not, however, follow our author through this maze, but give his own creed in his own words—a creed, we think, as rational as any that can be offered for our acceptance in the present condition of our knowledge.

"Let not the author, however, be misunderstood upon this abstruse and difficult subject. That the mind has a DISTINCT NATURE and is a DISTINCT REALITY from the body; that it is gifted with immortality, endowed with reasoning faculties, and capacified for a state of separate existence after the death of the corporeal frame to which it is attached, are, in his opinion, propositions most clearly deducible from revelation, and, in one or two points, adumbrated by a few shadowy glimpses of nature. And that it may be a substance strictly IMMATERIAL and ESSENTIALLY DIFFERENT from matter, is both possible and probable; and will hereafter, perhaps, when faith is turned into vision, and conjecture into fact, be found to be the true and genuine doctrine upon the subject. But till this glorious era arrives; or till, antecedently to it, it be proved, which it

does not hitherto seem to have been, that matter, itself of divine origin, gifted even at present, under certain modifications, with instinct and sensation, and destined to become immortal hereafter, is physically incapable, and under some still more refined, exalted, and spiritualized modification, of exhibiting the attributes of the soul, of being, under such a constitution, endowed with immortality from the first, and capacified for existing separately from the external and grosser frame of the body; and that it is beyond the power of its own Creator to render it intelligent, or to give it even brutal perception, the argument must be loose and inconclusive: it may plunge us, as it has plunged thousands before, into errors, but can never conduct us to demonstration. It may lead us, on the one hand, to the proud Brahminical and Platonic belief, that the essence of the soul is the very essence of the Deity, and consequently a part of the Deity himself: or, on the other, to the gloomy regions of modern materialism, and to the cheerless doctrine that it dies and dissolves in one common grave with the body." 37.

But we must take leave of this subject, and of the poem altogether, to which we cannot do justice in a review.

The first order, (Phrenica, or diseases affecting the intellect,) is divided into six genera, viz. Insanity, Ungovernable Passion, Illusion, Revery, Sleep-disturbance, Fatuity. These are subdivided into species and varieties almost innumerable —in short, we should have imagined that the invention of so many names and distinctions would have required or produced phrenzy itself! Nevertheless, we freely confess that Dr. Good has accumulated on the subject of mental and nervous maladies an immense fund of curious and important information from the best sources, and which we can safely recommend to the careful perusal of the student in medical science.

Of the great variety of subjects treated of in the clas Neurotica, our limits and plan will only permit us to take some slight notice of one or two.

The species Hypochondrias is neatly, though succinctly treated of by our author. The publication of M. Falret has brought the subject more before the public, of late, than many other diseases of greater importance. Assuredly, it is one which is equally distressing to patient and physician—for the former seldom acknowledges that he derives any benefit from the latter.

As early as the time of Diocles hypochondriacism was considered as a disease of the stomach, and notwithstanding the arguments of Falret, Georget, and some late writers, it does not seem to be yet satisfactorily settled whether it should be regarded as a cerebral or abdominal malady. For our own parts, we believe that in most cases there is functional disorder both of the brain and chylopoietic organs. It is

not easy to distinguish hypochondriasis from melancholia, since, in fact, they often change into one another. Sir Alexander Crichton, however, lays down the following distinction :—" In those whose health is much deranged true melancholy seldom arises, except mental causes of grief and distress join themselves to the corporeal ones : and this constitutes one of the characters which distinguish melancholia *vera* from hypochondriasis. The *former* may be said to be always excited by mental causes, and consists in various phenomena of grief, despondency, and despair ; whereas the *latter* most commonly arises from corporeal causes, and its mental phenomena consist of erroneous ideas entertained about the patient's own make or body."*

" The corporeal causes" says Dr. Good, " are usually a diseased emotion of one or more of the digestive organs, and especially, as we shall presently have to observe, a displacement of some part of the colon. It is also not unfrequently a result of the sudden cessation of some periodical or other habitual discharge, as that of an issue, or of a hemorrhoidal flux, a chronic ulcer, or some external eruption.

" The melancholy man seldom lives long, and his disorder often commences in the meridian of life. He frequently terminates his days by violence, or at the utmost never attains old age. The hypochondriac seldom becomes affected till after the meridian of life, and very generally continues to the stage of longevity." 146.

The common corporeal symptoms of hypochondriasis are a troublesome flatulence in the stomach or bowels—acrid eructations—costiveness—copious discharge of pale urine—spasmodic pains in various parts of the body—giddiness—dimness of sight—palpitations—sleeplesness—utter inability of fixing the attention upon any subject of importance, or of engaging in any thing that demands vigour or courage. The mental feelings and peculiar trains of ideas that haunt the imagination and overwhelm the judgment, exhibit an infinite diversity, and lay a foundation, Dr. Good thinks, for the three following diversities, viz. vapours—weariness of life—misanthropy, or spleen.

In the first variety the patient is tormented with a visionary or exaggerated sense of pains or some concealed disease —a whimsical dislike of particular times or places, or things —or groundless apprehensions of personal danger or poverty. Strange and manifold are the illusions under which men of otherwise excellent understandings have laboured in this respect. Greding gives us an account of a medical gentleman

* On Mental Derangement, vol. iii. p. 325.

who laboured under an impression that his stomach contained frogs, which had been successively spawning ever since he had bathed in a pool where some tadpoles had been swimming. He spent his time in trying to expel this imaginary evil, and had travelled to many places to consult eminent physicians. It was in vain to attempt to convince him that the gurglings or borborigmi he heard were from extricated wind in the stomach or bowels.

"I have, at this moment," says Dr. Good, "under my care, a hypochondriac of about fifty years of age, who affords sufficient proof that Moliere drew his Malade Imaginaire from nature, and hardly added an exaggerating touch. His profession is that of the law; his life has been uniformly regular, but far too sedentary and studious; without having any one clearly marked corporeal affection, he is constantly dreading every disease in the bills of mortality, and complaining, one after another, of every organ in his body; to each of which he points in succession as its seat: especially the head, the heart, and the testes. He now suspects he is going to have a cataract, and now frightens himself with an apprehension of an involuntary seminal emission. It is rarely that I have left him half an hour, but I have a note to inform me of some symptom he had forgotten to mention, and I have often five or six of these in the course of the day. The last was to state, that shortly after my visit he had had a discharge of three drops of blood from the nose—a change which he thought of great importance, and requiring immediate attention. His imaginary symptoms, however, soon disappear, provided they are listened to with gravity, and pretended to be prescribed for; but not otherwise. Yet in disappearing they only yield to others, that can only be surmounted in like manner. His head is too much confused to allow him to engage in any serious study, even if it were prudent to recommend it to him: but on all common subjects he is perfectly clear, and will converse with shrewdness and a considerable extent of knowledge. His bowels are sluggish; his appetite not good, though he eats sufficiently; his sleep is unquiet, but he has enough of it without opiates; his pulse is variable, sometimes hurrying on abruptly, and and without any obvious cause, to a hundred strokes in a minute, but often very little quicker than in a state of health. His tongue varies equally, and is irregularly clean, milky, and brownish, and then suddenly clean again. He is irritable in his temper, though he labours to be calm; and is so rooted to his chamber, that it is difficult to drag him from it. He has now been ill about ten weeks, but it is during the winter, and the season is too severe and inclement for him to venture abroad. I look forward to his restoration in the spring from exercise, change of air, and a course of tonic medicines." 148.

It is a melancholy reflection that the wisest and best of mankind are as open to this affliction as the weakest—perhaps more so! Pascal himself was, at one time, so halluci-

nated with hypochondriacism as to believe that he was always on the verge of an abyss into which he was in danger of falling. Under the influence of this terror he would never sit down till a chair was placed on that side of him on which he thought he saw it, thus proving the floor to be substantial.

The second variety, weariness of life, ending often in suicide, we have sufficiently discussed in another part of this Journal.

Our author appears to think that in many cases of hypochondriacism there is a displacement of the colon, whether as cause or effect.

"Post-obit examinations have also frequently pointed out another local cause which otherwise we should little expect: and that is a displacement of the transverse colon. M. Pinel, as we have already observed, regards this as a very common cause of insanity in all its forms: but there can be no question that it is a powerful and ready cause of the present species of mental alienation. M. Esquirol, who has found it as frequently as M. Pinel, tells us that this displacement sometimes consists in an oblique, and sometimes in a perpendicular direction of the intestine, so that its sinister extremity lies behind the pubes; whilst it has sometimes descended into the form of an inverted aorta, even below the pubes and into the pelvis. No disease of the organization has been found in any instance, and hence the change of place must proceed from relaxation and debility alone, where the misposition is not connate; on which account it may, in some instances, be an effect, as it is certainly a cause in others. It is under these circumstances that we chiefly meet with that pain in the epigastrium to which we have already adverted, and which gives the feeling of a tight cord surrounding the body in the line of distress; and when such a symptom, therefore, occurs, we have reason to suspect the cause of the disease to be produced by some derangement of the colon, in respect to position. Under the operation of such a cause the art of medicine can do but little: temporary ease, however, may be obtained by the pressure of a belt broad enough to support the whole of the lower belly; and it is possible that the intestine may gradually right itself under a course of the warmer tonics, as columbo, canella alba and cassummuniar, or lose its morbid irritability by habit. But these are rare terminations; for more generally the displacement increases, and the disease itself gains ground and becomes more incurable." 153.

Congestions in one or more of the abdominal organs are a frequent result of this complaint—not seldom a primary cause. Hence we find that hæmorrhoidal discharges are often serviceable, and, on the same principle, that leeches to the anus afford much relief.

We have said that Georget, Falret, and some others (among whom indeed we may reckon Cullen himself) consider the brain as the seat of hypochondriacism, and conceive that the

disorder of any other organ can seldom be regarded even as its remote cause. M. Falret,* who is the great modern champion of this doctrine, appeals to the phenomena and symptoms of the disease for proofs of its correctness. Hypochondriacs, says he, often complain of pain in the eyes, which organs appear occasionally to be larger during the paroxysms —they have some degree of intolerantia lucis—the arteries going to the head throb—the sense of hearing is acute, as are those of smelling, taste, and often of feeling—there is a predominant want of sleep—and when sleep occurs it is disturbed with frightful dreams. The intellect, at the beginning of the disease, is more acute than natural, but afterward becomes confused. These, and many other symptoms which we have not thought it necessary to enumerate here, are looked upon by our author as indications that the sensorium is the seat of the disease.

The next order of symptoms M. Falret considers as sympathetic, though commonly looked upon by physicians as primary ones. These are, depravation of digestion, gastric acidity—often an inordinate flow of saliva from the mouth—sense of tightness in the region of the stomach and *in the* hypochondria—nausea, and sometimes vomiting of blackish matters—constipation or diarrhœa—borborygmi—great flow of pale urine, &c. &c. These and many other anomalous symptoms will often continue for years, without any great loss of flesh, and without the friends or physician attaching much importance to what are considered imaginary complaints. But at length the patient begins to lose flesh and colour—he has palpitations of the heart, and, occasionally, intermissions of the pulse, and other more evident symptoms of actual disease.

In respect to *post mortem* examinations, M. Falret has not been very successful in establishing his doctrine. Lesions have been found in all parts of the body, and in none exclusively. Indeed, it is evident that Falret endeavours to establish his position rather by physiological and pathological reasoning than by anatomical demonstration.

In regard to treatment, M. Falret advises, and perhaps properly, that not much medicine is to be given. He seems to depend chiefly on moral management, as that which goes most directly to relieve the suffering sensorium. He recommends leeches to be occasionally applied behind the ears,

* See the excellent analysis of Falret's work on Hypochondriasis, in our respected cotemporaries, the Medical and Physical Journal, Medical Repository, and the 17th number of the Quarterly Journal of Foreign Medicine.

and cold applications to the head; at the same time, prescribing, (what is rarely obtained) exercise, amusements, cheerful company, change of occupation and scene, &c. With respect to the sympathetic disorders, he says laconically, "*sublata causa, tollitur effectus.*" But this is fallacious; for when hypochondriasis does actually originate in sensorial disorder, the abdominal or other sympathetic affections that take place subsequently require to be particularly attended to, as they keep up the primary complaint.

Returning to Dr. Good, we observe that he considers opium as a very doubtful medicine in hypochondriasis, though strongly recommended by several respectable writers, and gladly resorted to by the unhappy patients themselves. Dr. Cullen was decidedly averse to it, and we have found, that where the bowels are obstipated, opium is injurious. At the same time, as sleeplessness is a common feature of the disease, we have often exhibited an anodoyne at bed-time, in conjunction with an aperient or diaphoretic, without any injurious consequences, and with great solace to the patient.

Passing over a great many genera a species of mental and nervous affections, we come to NEURALGIA, of which our author has exhibited an imperfect history, as far, at least, as respects our own times. For example, neither the belladonna, nor the carbonate of iron are introduced into the methodus medendi, while some pages are taken up with the operation of cutting the nerve—a remedy which is now hardly ever resorted to—at least with success. Under the second species of this disease, neuralgia pedis, we have the following case.

"In calling, as I believe for the first time, the attention of the medical profession to this species, by introducing it into the volume of Nosology before the presentation of M Chaussier's book to the world, I had my eye directed to a very marked case which had then lately occurred to me in a clergyman of this metropolis, about forty-five years of age, but otherwise in firm health and cheerful spirits. He had for many years been a victim to it. The paroxysms were short, and of uncertain recurrence, but so acute as nearly to make him faint, and at length compelled him to relinquish the duties of the pulpit, for which from his zeal and eloquence he was admirably qualified, but where he had frequently been obliged to break off with great abruptness from the unexpected incursion of a fresh paroxysm. The pain usually extended up the calf of the leg towards the knee, and ramified towards the toes in an opposite direction, and was usually compared by himself to that of scalding verjuice poured over a naked wound. The tibial branches of the popliteal nerve, and particularly the plantar twigs, seem in this species to have been the part chiefly affected, though it is probable

that some of the offsets from the peroneal branch associate in some instance in the morbid action.

"Every therapeutic process that the art of medicine in the hands of the most experienced physicians of this metropolis could devise, was in this case tried in a long and tedious succession in vain. Sometimes external and sometimes internal preparations, or a tight ligature, appeared to afford a temporory alleviation, and to protract the intervals: but never any thing more. It was in consequence proposed by a surgeon of great eminence to amputate the leg, which was at one time on the point of being submitted to, though protested against by the present author, on two accounts. First, the uncertainty whether the morbid condition of the nerve might not be seated chiefly in the origin instead of in the extremity of the nerve; in which case, amputation could be of no avail; and secondly, the chance that in process of time the keen sensibility of the affected branches would be worn out and obtunded by the violence of the action. Such was the undecided and miserable condition of this patient at the time of noticing his case on the publication of the author's volume of Nosology. Since this period, the prediction that the disease would gradually wear itself out, has been completed: the paroxysms are now slight and tolerable, and the intervals much longer; and the patient has for nearly a twelemonth been able to resume the duties of his profession without any interruption." 296.

We think with our author that it would have been very wrong to have proceeded to amputation in the above case, as we have no doubt that the disease would have returned after the operation as bad as ever. Our improved pathology of the disease, now leads to look on neuralgia as a general rather than a local disorder, and consequently more success has been derived from constitutional than topical treatment. Our author has introduced a third species—neuralgia mammæ—but in fact, there is no part of the body which is not liable to the disease, and therefore the species might be multiplied ad infinitum. The following case, however, is interesting.

"It is about two years ago that I was requested by an eminent surgeon of this metropolis in dispensary practice, to examine a young woman, then eighteen years of age, who, for more than two years had been subject to a painful disorder of the breast, that seemed equally to defy all parallel and all mode of treatment On examining into the nature of the symptoms, I found them as described in the preceding definition. The organ was full-formed, soft, and globular, without the slightest degree of inflammation, or hardness. When the paroxysm of pain was not present, it would bear pressure without inconvenience, but, during the pain, the whole breast was acutely sensible. The paroxysms returned at first five or six times in the course of the day, and were short and transient: but as the

disease became more fixed, it became also more severe and extensive : for the agonizing fits at length recurred as often as once an hour, and sometimes more frequently : and from being comparatively concentrated, the lancinating shoots darted both downward in the course of the circumjacent ribs, and upwards to the axilla, whence they afterward descended to the elbow, below which I do not know that they proceeded at any time. These fits were at length so frequent and vehement as to imbitter her whole life, and incapacitate her from pursuing any employment, for it frequently happened that, if she attempted needle-work, her fingers abruptly dropped the needle a few minutes after taking hold of it, from a mixture of pungent pain and tremulous twitching. The twitching or snatches in the shoulder, for it at length reached to this height, were at one time so considerable as to give the patient an idea, to use her own words, that something was alive there ; while, though the lancinating pain did not descend below the elbow, a considerable degree of trepidation reached occasionally to her fingers' ends. Her general health was in the mean time unaffected, and she was regular in menstruation.

"I had no hesitation in regarding this a non-descript species of neuralgia ; and as little in communicating my fears that no plan of medicine we could lay down would be more than palliative, even if it should prove thus far beneficial, and that we must trust to time alone for a cure, and that obtuseness of sensibility which I have already noticed as a common consequence of high nervous irritation, continued till the organ becomes exhausted and torpefied.

"Every remedial process was, nevertheless, tried in succession for the purpose of obtaining relief, if not full success. Bleeding, local and general, frequently and profusely repeated ; purgatives of all kinds ; tonics and antispasmodics of all kinds ; the hot and cold bath ; electricity and galvanism in every form ; rubefacients, blisters, setons, issues, and whatever else could be suggested, were enlisted into service in succession. But every thing was equally without avail ; nor do I know that even a temporary relief was obtained by any of these. Narcotics of all kinds proved impotent : drowsiness, indeed. and a comotose stupor were hereby in various instances obtained, but the interval of wakefulness was as much as ever tormented with the same racking paroxysms. From the powerful influence of nux vomica in many cases of nervous affection, to some of which we shall have occasion to advert hereafter, I had some hope of producing a slight impression on the nerves affected : but the hope proved illusory : she took it in infusion as far as to about eight grains a dose, three or four times a day, till her head was intolerably confused, and every other part become numb, but the paroxysms were intractable." 299.

The poor sufferer tried one dispensary after another, and from each was discharged as incurable. At length she began to improve without any other medicine than a seton under the breast.

This fourth class of nervous affections affords us no scope for reflection or matter for extraction. The subjects are pretty fairly handled, but present little above or below par for commentary. Among the numerous species of functional disorders of the nervous system, our attention was arrested for a moment on one which is rarely treated of in systematic works, or indeed considered as a disease at all. This is dysphoria simplex, or, in common language, "*fidgets.*" It is really a most disagreeable and troublesome complaint while it lasts, and often puzzled us to account for its origin and cause. The import of the term, as every one knows, is restlessness, unsteadiness, and perpetual change of place; and most languages have some peculiar word to express this annoying and irritable sensation.

"The actual cause" says Dr. Good, "seems to consist in an undue accumulation of sensorial power, which seeks an outlet, so to speak, at every pore, for want of a proper channel of expenditure. Thus every one becomes fidgety who is obliged to sit motionless beneath a long-drawn and tedious story of common-place facts totally destitute of interest: and still more so when he is eagerly waiting, and fully bottled up, as it were, to reply to an argument loaded with sophisms, absurdities, or untruths, and over which he feels to have a complete mastery. So the high-mettled horse is fidgety that, called out in full caparison, and still restrained in his career, is panting for the race or the battle. 'So the squirrel, when confined in a cage, feels,' as Dr. Darwin has ingeniously observed on this disease which he calls jactitatio, 'a restless uneasiness from the accumulation of irritative power in his muscles, which were before in continual and violent exertion from his habit of life, and in this situation finds relief by perpetually jumping about his cage to expend a part of his redundant energy. For the same reason children that are constrained to sit in the same place at school for hours together, are liable to acquire a habit of playing with some of the muscles of their face, or hands, or feet, in irregular movements which are called tricks, to exhaust a part of the accumulated irritability by which they are goaded.'

"In the two last instances this irritability is simply accumulated for want of a proper outlet, and not from inordinate secretion. In the two preceding cases of the restrained horse and the restrained orator, there is added to this simple accumulation, for want of disbursement, an accumulation also from inordinate excitement." 467.

That the cause, in many cases, may be an undue accumulation of sensorial power, we are not inclined to deny; but we have found, in ourselves, that this fidgety state which usually assails us at night, is most certainly owing to something irritating the nerves of the primæ viæ, as cheese, pickles, or any kind of food that happens not to be digested properly in the stomach and duodenum. Green tea produces

the same effect. To allay the nervous irritation thus induced, we have often been obliged to get out of bed, and walk the room for a quarter or half an hour, and that repeatedly in the same night.

The succeeding species, dysphoria anxietas—defined thus: —"the restlessness chiefly affecting the præcordia, with depression of spirits, and a perpetual desire of locomotion," engaged our notice, as being a most disagreeable sensation, and better described or understood perhaps, by the simple terms gloom or horrors. We mention it because we think it is very often produced by bile (particularly of a depraved quality) in the primæ viæ. We have known this gloom or despondency removed in a very few minutes by a discharge of bile; and we generally take measures to clear the primæ viæ whenever we feel these "blue devils" approach us.

The more important subjects comprehended in the remaining part of this 3d volume, are apoplexy and epilepsy, which have been very fully treated of in this journal, when reviewing certain monographs on those particular topics. It is therefore unnecessary for us to enter on them here, especially as they are not discussed on a very large scale, and comprehend only the more common matters of fact as yet ascertained respecting them.

The 4th volume is occupied with the 5th class, GENETICA, diseases of the sexual function. The first order, Cenetoca, affecting the fluids; the 2d Orgastica, affecting the orgasm; the 3d, Carpotica, affecting the impregnation.

The physiological proem gives our learned and ingenious author an opportunity of illustrating his subject by a pretty general though succinct view of the mysterious process of procreation in the other tribes of animals besides man. But as the last volume embraces some interesting diseases of the genital organs, on which we mean to make some remarks, we shall construct a short article thereon for our next number.

X.

Remarks and Practical Results of Observation on Scirrhus and Cancer. By Antonio Scarpa, Emeritus Professor and Director of the Faculty of Medicine in the Royal Imperial University of Pavia, Chevalier of the Royal Order of the Iron Crown, Member of the Royal Academy of Sciences in Paris, F. R. S. &c. &c. Translated from the Italian. With an Appendix, containing an Account of a Sanguineous Tumour of the Breast, and some Annotations on the Text. By James Briggs, Surgeon to the Public Dispensary, and Assistant Surgeon to the Lock-Hospital, 8vo. sewed, pp. 61, with a plate, London, 1823.

Mr. Briggs informs us, in his preface, that the original of the following Translation appeared lately in the Transactions of the Imperial Institute of Milan, and may not be undeserving of the English surgeon's perusal. In it, he thinks, the doctrine of cancer being a local disease, in its incipient state, and consequently curable by early extirpation, is based on a fuller and more satisfactory body of evidence than has yet been laid before the public. Any thing indeed from the pen of the venerable and experienced Scarpa bears a passport to professional attention at least, if not esteem; and under this impression, we deem it our duty to give extended publicity to the celebrated Pavian Professor's observations.

Many have been the remedies proposed, as Mr. Briggs observes, for the dispersion of scirrhus and healing of cancer, but none of them have realized expectation. How indeed can we reasonably look for the restitution, by internal remedies, of a part, the organical structure of which is found to be wholly subverted, and, as it were, disjointed from the general system? It must be evident that no other means are left than the absolute removal or destruction of the part by a mechanical operation.

"Perdit medicina sæpe egrotos, quos chirurgia servare poterat."

The determination of the period when the diseased part may be removed with full assurance of success, and the sources of the frequent failure of the operation, are the principal objects of the present memoir.

The Professor commences by noticing the discrepancies of opinion, among men too of erudition and experience, whether scirrhus and cancer be *purely local*, or general and local affections—whether scirrhus attacks, without exception, every

organic texture—whether it may be distinguished from other glandular tumours bearing an affinity to it—whether cancer manifest the same degree of malignancy in all structures—and finally, *why* the legitimate glandular cancer so constantly baffles the hand of the operator, and the action of the most powerful caustics and cauteries?

The Professor thinks that we are enabled now to distinguish real scirrhus from other chronic tumours apparently similar to it—and to demonstrate in the most satisfactory manner the advantage arising from a preventive and timely recourse to manual operation.

"It appears, in the first place, from almost innumerable practical observations, that scirrhus and consequently cancer never attack primarily the lymphatic system, nor of necessity the absorbent glands. One or two examples adduced to the contrary, in which a supposed scirrhus had been extirpated with some of the lymphatic glands of the neck (for every chronic glandular tumour rather harder than common, even by surgeons of eminence, has been too hastily denominated such,) have not been hitherto authenticated, much less confirmed, by rational experience.

The whole, or at least certainly some of the most remarkable of the *mucous* glands, as the *sublingual* and the *tonsillary*, are likewise known to be exempt from a primitive scirrhous and cancerous taint. With regard to the latter of these, the large hard tonsil improperly termed scirrhous, every experienced surgeon is aware that it may be removed, portion after portion, and even gradually destroyed, by the repeated applications of caustic, without any fear of its degenerating into cancer by such means. The *thyroid* gland, whether we are disposed to regard it as a lymphatic or mucous gland, never becomes *primarily* scirrhous or cancerous. And if in any instance this glandular body has been found eroded by cancerous ulceration, it has only been in consequence of its contiguity with the trachea or œsophagus affected by that disorder. Whenever consequently one or more of the lymphatic or any of the mucous glands already mentioned are found to be infected with cancer, it takes place only by the cancerous ichor being conveyed to them by means of the absorbent vessels, or by the infiltration of the morbid poison within the cellular tissue connecting the lymphatic gland with the cancerous part." 3.

In the next place, our author avers, that scirrhus and cancer are never met with *primarily* in the viscera, strictly so called, "with the exception of those internal parts which are furnished with an intimate covering of the reflected skin, as the larynx, œsophagus, stomach, rectum, vagina, and neck of the uterus." The indurations of the brain, fungi of the dura mater, chronic tubercles of the lungs, of the liver, spleen, omentum, pancreas, kidneys, ovaria, prostate, bladder, are in no respect, says our author, either scirrhous or

cancerous, or of the nature of *medullary* fungi.* These chronic indolent tumours, he thinks, or fungous tubercles of the viscera (provided they are not manifest consequences of general cancerous contamination) are, strictly speaking, "but morbid phenomena of general *scrophulous* diathesis, or else indurations either referable to previous acute inflammation imperfectly discussed, or produced by slow and long protracted inflammatory action."

Again, our author affirms that scirrhus and cancer never make their appearance before puberty, and seldom before the 25th year in either sex—the slow indurations of the mammæ in female children, the chronic tumefaction of the conglomerate glands, and the indolent enlargement of the testes in boys, being "invariably, and without exception, of scrofulous origin and character."

"In the fourth place, observation and experience teach us that cancer is never formed but in consequence of legitimate scirrhus affecting some of the external conglomerate glands, or of rigid indurated porri warts or malignant tubercles of the external or reflected skin partaking of the nature of scirrhus. Under one or other of these two forms the disease may make its appearance; and the ulceration which ensues upon it is that which is strictly cancerous; for an unclean fungous spreading sore with hard inverted edges, is a thing widely different from a malignant ulcer formed upon a part which had been previously indurated by genuine scirrhus." 6.

Conformably to our existing pathological knowledge, observes Professor Scarpa, there are but two organic textures, which serve as a nidus (if he may be allowed the expression) for the formation and developement of scirrhus and cancer, viz. the external conglomerate glands and the skin. Among the former, the mammæ is most subject to the disease, next

---

* "Induration of the pancreas" says he, "is not unfrequent; but even in this morbid state, it preserves its natural internal conformation, that is, the lobular structure; which is not found to be the case in the substance of the scirrheus gland, the whole of which has been changed into an uniform lardaceous mass.

"The internal structure of tumours of the ovaria, is not dissimilar to that of *strumous* or *steatomatous* tumours, which is widely different from that of scirrhus.

"No surgeon has yet seen a genuine scirrhus, much less a cancer of the prostate gland. The lacerations which are sometimes made by the introduction of the catheter across it, are never found to degenerate into cancerous ulceration.

"If in any instance the neck of the urinary bladder has been found infected by cancer, it has only been in consequence of its connexion with the rectum or neck of the cancerous uterus." 4.

the parotid, maxillary, and lachrymal glands, together with the body of the testicle.

The latter of the two organic textures liable to scirrhus and cancer is the skin. In consequence of peculiarity of structure, the scirrhus presents itself in this tissue either in the form of a rigid wart, hard tubercle, or dark varicose knot.

"On an attentive examination, however, of the minute structure of these malignant tubercles, whether of the external or reflected skin, notwithstanding this diversity of external configuration, their internal substance is found to bear a close resemblance to the intimate, firm, *lardaceous* texture of the glandular scirrhus, intersected in like manner by whitish lines, and filled, like that of the scirrhus, with a dense, coagulated, viscid, albuminous fluid And it is deserving of remark, with regard to these malignant scirrhi of the skin, that their destructive tendency is not manifested with an equal degree of virulence in every part of the integument. For, it is observed, that the real nature of these excrescences, is more destructive in proportion to the vascularity, sensibility, or important offices of the parts which are covered by the affected skin; cancer of the face and lips being less formidable than that of the internal nostrils, of the tongue, lachrymal caruncle, termed the *malignant encanthis*, that of the glans of the penis, of the rectum, of the vagina, or neck of the uterus." 8.

In respect to the last-mentioned part, our author has no doubt, from numerous anatomico-pathological examinations, that the primordia of cancer uteri are to be invariably traced to the ulceration of one or more of these small scirrhi, under the form of warts or tubercles, which are formed upon the reflection of skin investing the upper part of the vagina, and the orifice and neck of the uterus.

"One or more of these malignant hard tubercles upon the reflection of skin, increasing in volume, encircle the os uteri like a ring, and occasion the opening and morbid dilatation of this natural orifice, the edges of which become hard and irregular, and afterward exulcerate; and, from being indolent as at first, become painful, giving sudden transient shootings; and presenting, when examined by the finger, excavations and irregular elevated edges around the orifice of the uterus, as well as at the upper part of the vagina, from which is discharged a thin bloody ichorous fluid, of a *lixivial* odour. The cancerous ulceration at first spreads superficially upon the neck of the uterus precisely as the cancer of the skin affecting the face; but afterward penetrates more deeply, first destroying the substance of the cervix uteri, then that of its body, and, lastly, its fundus. All other chronic hard indolent tumours which originate from the internal or external surface of the body, or fundus of the uterus, when examined anatomically, present nothing in their minute structure which is in common with the true scirrhus and cancer; nor is there, I may venture to assert, in the whole records of surgery, any well-authenticated fact of cancer of the uterus having originated from

any other part of this viscus, except from the skin reflected over the orifice of it, and investing the upper part of the vagina." 10.

We are not able to follow our author minutely in his diagnosis between scrophulous and scirrhous enlargements. The scrophulous diathesis and character are well delineated, and are but too familiar to the English practitioner. We shall extract a passage from our able author relative to **scirrhus**, as contrasted with scrophula.

"The peculiar and distinguishing symptoms of scirrhus are of a perfectly opposite character to those of struma affecting any of the external conglomerate glands. The scirrhus attacks persons of advanced age, of rigid fibre, and of a sanguineo-bilious temperament, in whom, if there be any suspicion of general vice of the habit, it is not that of scrophula. The scirrhus is *solitary*, that is, it affects only some one of the external conglomerate glands, and it rarely or ever happens that two really legitimate scirrhi are met with in the same individual. The scirrhus, from its first appearance, possesses an excessive and almost stony hardness, is perfectly indolent, in consequence of its not being associated, like the scrophulous or strumous swelling, with low chronic phlogosis. The scirrhus increases slowly in every direction, and feels to the touch as if composed of so many pieces of hard substance agglutinated to each other. Its insensibility, notwithstanding the increase of the tumour, is preserved, until it degenerates into cancer. This distinguishing character of the scirrhus, contrasted with those of struma, which, as I have stated, is not altogether insensible, has been remarked by Galen, in the following words:—"*Exquisitus scirrhus tumour est præter naturam sensu carens et durus: non exquisitus autem* (alluding to struma) *non omnino sine sensu est, sed ægre tamen admodum sentit.*"—The inveterate scirrhus, which is generally tuberculated, raises the skin irregularly, to which, in some parts, it forms an adhesion. As soon as the darting pains commence, the scirrhus, so far from increasing in size, shrinks and acquires a degree of hardness approaching, one might say, to dryness, drawing inward along with it that portion of skin to which it had formed adhesion; precisely contrary to what happens in struma when the tumour has arrived at its largest bulk, and is on the point of bursting, or suppuration taking place within the substance of it.

"In regard to the difference between the internal altered texture of the strumous conglomerate gland and that of scirrhus, the following are the results, furnished by anatomical investigation. A coloured size-injection thrown into the arterial vessels of the strumous gland penetrates it at first very freely, but becomes soon effused into it, in consequence of the flaccidity and friability of the vessels which supply the substance of the gland. When a section is made of the strumous gland, a vascular compact substance presents itself, filled with a glutinous (*albuminous*) fluid, mixed with a granulous, sebaceous, or crètaceous substance. Between the body of the tumour and its exterior involucrum, there are always some vestiges of *coagu-*

lable lymph; and frequently also, in the internal part of it, indubitable proof of its having suffered inflammation, though slight and passive. In the scirrhus tumour, on the contrary, the injection, though of the finest kind, never fills but the principal arterial trunks of the diseased gland. The hardness of the substance composing the scirrhus is altogether peculiar to this tumour, and cannot be confounded even by the most inattentive observer with that of any other kind of chronic glandular enlargement. It has the appearance of softened cartilage, and strongly resembles the mollified substance of the cartilages and ligaments of the joints, in the change observed in the *white* swelling. When the scirrhus is divided through the centre, it presents a whitish surface, equally striped with bands still whiter than itself, like rays drawn from the centre to the circumference, or in the form of ramifications.* On pressing upon it, a transparent gelatinous (albuminous) fluid issues from it, which, diffusing itself upon the cut surface, renders it in a short time lucid, and as if it were covered by varnish. Lastly, if the struma and scirrhus are macerated together in water for a considerable length of time, the struma is found to separate into a soft spongy fimbriated mass, while the scirrhus retains nearly the peculiar hardness which it possessed before it was subjected to that process. This remarkable difference in the cohesion between the component parts of the scirrhus and those of struma, points out the reason why in some supposed cases of *occult* cancer, but which in reality were of a strumous nature, cavities have been found containing quantities of pure or bloody serum of two, four, and even six pounds weight, which certainly could never take place in the intimate hard tenacious substance of scirrhus." 19.

The real nature of warts and malignant tubercles of the external or reflected skin, is to be judged of from their unusual rigidity and hardness—from their being observed to be deprived of their natural tegument—from the unusual size and depth of the base, which seems to extend beyond the substance of the skin—from their being of a yellowish, livid, or dark colour, surrounded by a small red circle—from their rapid growth—from the intolerable pruritus excited by them, from which there is a slight yellow sanguinolent acrid serum, preceded by sudden darting pains.

In respect to the diagnosis between scirrhus and the incipient malignant medullary fungus, our author thinks it proper to state that the *former* attacks only some of the external conglomerate glands, and the exterior or reflected skin; while the medullary fungus has its origin in the sub-cutaneous or intermuscular cellular texture, or, as some suppose, even in the sheaths and substance of the nerves themselves.

---

* Baillie's Morbid Anatomy.—Abernethy's Surgical Works, vol. ii.

"The recent medullary fungus also, provided it is not too deeply seated, has conjoined with its hardness so remarkable a degree of *elasticity*, that this latter might be said to be the peculiar and characteristic symptom of this swelling, by which it is principally distinguished from the congential varicose sanguineous tumour (hematodes.) The inveterate medullary fungus, which is in general much more extended than elevated, is partly hard and elastic, partly soft, with an apparently subjacent fluctuation; circumstances that are never met with in the scirrhus before it has degenerated into the state of occult cancer." 20.

We find it impossible to follow our author through his lucubrations on the constitutional generation of the scirrhous taint, and its deposition *locally* afterwards; but the following passage will convey a pretty clear idea of Professor Scarpa's doctrine on the point.

"If, therefore, during the first period of the scirrhus, the person affected by it enjoy general good health, and if, in the second stage of the disease, the symptoms of cancerous cachexy appear, it seems to be highly probable, from what has been already stated, that the scirrhus is originally and during its first period but the *deposition* of a malignant germ, generated in the system at large, and afterwards impelled by the vital forces, and concentrated wholly in the sinus of some of the external conglomerate glands, or upon some portion of external or reflected skin, where it is retained in a *quiescent* and *innocuous* state; and of consequence that the cancer is but the result of a local process of imperfect suppuration, excited in the intimate substance of the scirrhous gland, by which the malignant deposit is converted from this latent and inert state into cancerous ichor." 35.

"From these premises, our author thinks it follows, as a necessary consequence, that the demolition of the scirrhus can never be attended with success, "unless the operation have been executed before the developement of the latent morbid seed in the substance of the scirrhous gland, or malignant wart or tubercle of the skin—that is to say, *before the commencement of the lancinating pains*, and infection of the lymphatic glands connected with the seat of the occult cancer." This, we confess, is melancholy doctrine.*

In illustration of the great advantage of early extirpation, (the jet indeed of the whole publication,) our author adduces the testimony of Flagani, who only was unsuccessful in two cases out of twenty-seven, "performed within the first months from the appearance of the scirrhous tumour." The following will convey to the English reader the result of the Italian professor's experience.

---

* See also Mr. Bell's observations in the Medico-Chirurgical Transactions

"If to so powerful a testimony as this my own experience can add any weight, I must ingenuously declare that I have been unsuccessful and disappointed in my expectations whenever I have extirpated the scirrhus, accompanied by unequivocal signs of the tumour having entered into the second stage. In the whole course of a long practice three cases only of extirpation of *genuine* scirrhus of the breast have had a prosperous result with me, these being the only three in which I was so fortuate as to perform the operation within the first months from the appearance of the disease, before the unpleasant sense of pruritus and heat had taken place, and consequently that of the lancinating pains. The operation, in all these instances, was performed by the removal of the whole mammary gland, although the scirrhus occupied scarcely two-thirds of it; and in each of them, when the internal, altered texture of the indurated gland was examined attentively, I found the peculiar and distinctive characters of the legitimate scirrhus. I have effected a cure in a much greater proportion than this, in the excision of the legitimate scirrhus of the testicle; a difference of success which I can attribute to no other cause than the more frequent opportunity of extirpating the scirrhus testicle during the first stage, than that of amputation of the scirrhus of the breast before it has advanced to the state of occult cancer. In two cases I have extirpated the malignant tubercle of the tongue; in the one the cure was complete and permanent, the darting pains not having yet commenced in it, and much less the appearance of fissures; in the last case, as it was operated on during the period of degeneration, the cancerous sore returned more formidably than before. In one instance only have I been successful in the excision of the *encanthis* indurated by scirrhus of a malignant nature, but indolent, recent, and in the first period of it; the other cases of this sort, from the operation having been performed during the second stage of the disease, had an unsuccessful termination. For the same reason the excision of the parotid and maxillary glands was unsuccessful in those cases which have come within my knowledge, in which the darting pains were unusually violent." 47.

Professor Scarpa feels himself warranted, however to make exceptions here in favour of warts and hard malignant tubercles of the skin of the lips, nose, and face—maladies which have received the forbidding name of noli me tangere. These seem to our author of a less virulent nature than that of the glandular scirrhus, or even of the malignant tubercles of the reflected skin.

We have now presented our surgical brethren with the sentiments of the distinguised Pavian professor, and we do not deem it necessary to offer any commentaries of our own. We have only now to give an account of a case of a sanguineous tumour of the breast, related by Mr. Briggs, in the Appendix of notes to the translation. As the case is short, and admits not of abbreviation, we shall insert it entire.

"1810, *October.*—Mrs. Allardice, a single woman, aged forty-five, a patient of the Public Dispensary, had a tumour in the left breast, extending from within a short distance of the nipple towards the axilla, which originated, as she stated, about eighteen months before, like a small moveable kernel under the skin, sometimes painful when the arm pressed upon it during sleep. Within the last three weeks a fluctuation had been perceptible in it, and it had been judged by the late Mr. Crowther, to be of a cancerous nature.

"30.—The tumour was punctured with the point of a lancet, and about four ounces of a dark and inodorous fluid was discharged from it in a jet, resembling in all respects, except the circumstance of its not coagulating spontaneously, venous blood, and on examination appeared to consist of the serum, with the colouring part of that fluid only.

"On the third day following, the tumour was found to have filled again; a considerable quantity of bloody fluid having flowed from the orifice in the interim, some of which was effused into the cellular membrane, producing ecchymosis of the surrounding skin. The part felt hot and tense, and the pulse quick. From this time until the operation, a period of thirty-one days, the orifice burst open several times, and discharged a large quantity of the same kind of fluid, the tension taken off by this means affording her relief from the pain occasioned by its pressure. The alarm that she felt at the repeated discharges of blood which took place at intervals, and which became more frequent and profuse, induced her to submit to the removal of the diseased part.

"*Dec.* 4.---An elliptical incision was made through the integuments covering the tumour about four inches and a half in extent, and the whole of the indurated part dissected out, laying bare, by this means, a part of the pectoral muscle and the strong fascia covering the *serratus magnus.* Immediately below the edge of the former muscle, running in the same direction, and upon this fascia, a large *venous trunk* was exposed, which bled profusely. Struck with the unusual size of this vessel, it was immediately considered to be the source from which the tumour had originated, as well as the hemorrhage which had taken place subsequently to the puncturing of it. A ligature was accordingly applied upon it, and the lips of the wound brought together in the usual manner.

"Every thing seemed to go on well until the ninth day from the operation, when to my great disappointment, I found the patient complaining of unusual pain in the wound, from which there was a profuse discharge of a very highly offensive bloody sanious fluid; and on removing the dressings, the lips, particularly towards the axilla, were found to be forced apart by an accumulation of grumous blood.

"Notwithstanding these unfavourable appearances, from which I had apprehensions of the failure of the operation, the sanious bloody discharge which took place from it gradually diminished, and in the course of eight or nine days had entirely ceased. In about six weeks from the time of the operation the parts were perfectly healed.

"This woman continued in an apparently good state of health for eight years afterwards, without any appearance of relapse of the local complaint, and died of sudden illness in St. Bartholomew's Hospital, in the autumn of 1818.

"In the centre of the tumour, when examined, a cavity was found capable of holding three or four ounces of fluid, the inner surface of which presented a number of rugæ or irregular folds, not unlike those of the corrugated inner surface of the bladder, or the auricles of the heart, forming small interstitial cells or foveolæ communicating with the principal cavity; the entire parieties of the cavity, which were about one-third of an inch in thickness, as well as the small cells formed in the sides of it, were found to consist of depositions of successive layers* of coagulable lymph. A small portion of the glandular part of the breast had undergone some change in its texture, but had no communication with the cavity before-mentioned, and probably arose from pressure made upon it in consequence of its contiguity with the principal diseased part.

"From this account it is evident that the disease originated in the *vascular* and not the *glandular* part of the breast; that the bloody fluid contained in the sac was derived in some manner or other, from the enlarged *venous* trunk before mentioned, although the mode of communication cannot be demonstrated, no opening being found in the sac as far as I could discover, similar to what is met with in aneurismal tumours or ruptures of the vein. It is reasonable, also, to conclude that the obliteration of this vein by the operation put a stop to the further progress of the disease. The formation of the sac by layers of coagulable lymph, and the want of this property in the fluid contained within it, appear to admit of an easy explanation, upon the supposition of the extravasation and lodgment of blood for some time in the breast, and the consequent spontaneous separation of its constituent parts.

"In all the leading circumstances this case will be found to bear a strong resemblance to the histories of 'Collections of Bloody Lymph in the Breast,' recorded by Dr. Monro, with which it ought to be compared as well as that related by Richter, which, though in some respects different, appears, in my opinion, to have been of the same character." 58.

The translation, as our readers will have perceived, is couched in easy and perspicuous language by Mr. Briggs, and we have no doubt is a faithful picture of the original.

---

* "A tumour in the breast, in which there is a cavity similar to this, is preserved in the Museum of the College of Surgeons, but unfortunately without any accompanying history to explain it."

XI.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING THE

SPIRIT OF THE PUBLIC JOURNALS,

FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriri oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** *Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias.* CICERO.

1. *Observations on the Dracunculus, or Guinea-worm.* By the late DR. HELENUS SCOTT, of Bombay.

[Communicated to Dr. Johnson on the Author's departure for New South Wales, 1822.]

THE Dracunculus or Guinea Worm deserves to be better known, for it gives rise to very important and very distressing effects in tropical climates. A thousand conjectures, and some of them very absurd, have arisen with regard to the natural history of this animal. Some writers deny its vitality, and a very recent author and well known physician has said, that it is nothing but an inanimate prolongation of the cutis, like the string of a fiddle in its appearance, and in some of its properties. This is very entertaining!

A medical gentleman, a very few years ago, on the Malabar Coast, looking at a gardener digging the ground, saw him turn up a quantity of something like the hairs of a horse. On inquiring what it was, for it excited no curiosity nor attention in the Indian, he was told that it was a quantity of Guinea-worms, and that during the rainy season they often found them in this state in the wet earth. He collected a considerable number of them, a sufficient quantity to fill a phial, into which he put them with alkohol. In this state he showed them to many, and gave a portion of the mass to a particular friend of mine, who is now no more. This occurrence took place soon after I left India, so that I never saw any of those that were found on this occasion, but I have as firm a conviction of the fact as I should have had if I myself had witnessed every part of the discovery. That those animals by which the human body is so often infested are bred in the moist earth there can now no longer be a doubt.

I had long known that the Guinea-worms become very abundant

during the rainy season. The Indians who walk with their feet and legs bare are at this time sadly infested by this animal. That the ova from which it arises, or the young worms in a very minute form live in water is probable from the circumstance, that whenever the human skin is exposed to be wetted at this season, the Guinea-worm is soon found to effect a lodgement, and to give rise to all the symptoms of the well-known disease. It may be asked how it happens that those minute worms are so seldom seen in the state of those dug up by the gardener. To this I can only reply, that perhaps the changes from a very minute form to one much more sensible may require but very little time, before the animals quit their subterraneous abode. Again I may observe, that Europeans are but very little employed in India in digging the ground, and especially during the rainy season, at which period only, those animals are in a visible state. Let me add to all this, that to make such an observation, requires a degree of attention that every man does not possess; but the natives, who alone meet with it often, seem well acquainted with the fact. It is well known that the men who in India are employed in camps or elsewhere to carry water in leathern bags on their backs, are infested by this animal over all that part of the skin that has often been wetted. From all this I conclude, that while yet in a minute, perhaps in an invisible state, this animal resides in a moist soil, or in water, and that coming into contact with the human skin, it adheres to it, and makes its way to the cellular membrane, which is the proper place of its residence. Wherever this membrane is diffused the worm finds its way. It generally lies just below the true skin, but it often goes far between the muscles, and I have known it residing very deep in the socket of the eyes, and without doing and material harm. I have known it take up its abode in the mouth, in the cheeks or below the tongue. It often inhabits the scrotum, and in short wherever the cellular membrane extends the dracunculus finds a home.

There cannot be a doubt but that it has some locomotive power, though we never observe their motion after extraction. The first mark of the existence of a Guinea-worm is frequently a small blister on some part of the skin, like the appearance of the cuticle from the application of blistering plaster. If this little vesicle be broken from being rubbed, it often happens that the most insufferable itching is produced over the whole body. The animal seems, on its first exposure to the air, to be irritated, and to shed a poison by which the whole system is instantly affected. This does not happen in every case, nor does it twice take place from the same worm. I can never forget the sufferings that I experienced from this cause. Little thinking that I had a Guinea-worm under the skin, I left my house one morning, when I soon became extremely sick at stomach. This was followed or combined with an intolerable itching over almost every part of the skin. I soon resolved to go into a gentleman's house, about two miles from my own, and although very near it, I could no longer have patience, but tore off almost all my clothes to be able the better to relieve this insufferable sensation. In this con-

dition I left the carriage, and ran into the house in a state of misery and impatience that I cannot describe. I believe I excited considerable alarm, and I think not without reason, for I had much the appearance and many of the feelings of a madman. I soon however was supplied with a tub of water, and getting two or three men to wet and rub my skin wherever I desired them, my feelings became more moderate. In an hour or two I was able to return to my own house, but the sickness of stomach and the itching did not quite leave me till the next day. I then saw and could take hold of of the end of the worm several inches of which I extracted with great ease.

I must now observe, that this animal has not the power of returning into the skin from which it has been drawn, not even in the smallest degree. It is elastic, so that on being stretched it may be drawn to a greater length like a thread made of worsted. This elasticity gives it the appearance of pulling itself backwards and of returning to its former residence. I am quite sure however, that it does not possess such a power even in the least degree as I have just said. To how many errors may a wrong observation give rise? The fear of losing the worm by its retreating backwards, has given birth to much injurious practice and needless alarm. To prevent this retreat, it has been recommended to roll it on a quill, securing it with a thread, or to tie it in some other way that the prisoner may no longer be able to escape. The consequences of this tying and stretching and pulling are very hurtful in many cases, and always useless or needless. Although this animal appears so inert, and so insensible it suffers from such treatment, and produces great suffering to the patient. On first being stretched and tied it no doubt finds itself uneasy, and it has the power of communicating great uneasiness to the patient, for soon after he becomes restless and feverish. The limb becomes inflamed and painful, and all this from causes that we cannot see. I have supposed that in its efforts to relieve itself it is agitated through its whole length, and becomes the means of exciting fever and much mischief. The best means of relieving this state of suffering, is to remove all the tyings and to apply a soft poultice to the part.

The native surgeons on India have a method of extracting the Guinea-worm which often answers very well; for a worm, even when of the length of three or four feet, is sometimes extracted in a few minutes. When a worm is known to exist in any limb, they endeavour to discover the way in which it is placed. They can often feel its convolutions below the skin like a vein encircling the limb, or branching in various directions. They then raise the skin with a needle or pointed instrument, cutting off little portions of it till they have come to the animal below it. They through this well or opening introduce a probe or blunt instrument below the animal now laid bare, and getting hold of it double, they are often able to extract the whole of it at once. The success of this operation however much depends on the worm being placed in a soft or fleshy part, for if it get near the fingers or toes, or so close to any bones

that its convolutions surround the bones, it is evident that it cannot be extracted without waiting perhaps for many days, till it is disposed of itself to relinquish its strong hold.

It has been thought that some means may be used to kill this worm without extracting it, an opinion that has given birth to a good deal of quackery. With such a view, I have known them use a variety of applications. I have seen the limb rubbed with mercurial ointment, and I have known a variety of vegetable poultices applied. They often take one of the thick and juicy leaves of the plant of the aloe succotorina, which is very common in India. They slit it open, and cutting it into a proper length they roast it over the fire, and apply it like a poultice to the part where the worm has appeared. This plant contains a very bitter juice, which I suppose was expected to be much disliked by the worm. It certainly makes a convenient and agreeable poultice in this way, and I have on some occasions supposed that it answered better than any thing else of that kind.

There are very many cases in which we cannot venture to make an opening in the skin for the extraction of the worm, or where it would not succeed. In such cases, it was my practice of late years, as soon as the worm had come out far enough to enable us to seize it, to pull it gently as long as it followed without resistance. I then with a pair of scissors cut off the whole of what had been extracted, leaving half or a quarter of an inch of it only. Over this a poultice or something soft was applied, and the part was tied up so as to defend the animal from farther injury. In this way I have succeeded in extracting the whole of the worm, never pulling it when I found any resistance, but bringing out as much as would readily come and cutting off daily what I had extracted, as at first. From this mode I have never seen any harm whatever to follow. All irritation is avoided, for the animal *seems* not to suffer from being cut in two, although it does from being stretched. The end of it is never long lost, for it continues to advance and make its appearance evidently retaining life and the power of motion. I have not unfrequently known the worm die in its subcuticular abode giving rise to inflammation followed by abscess with a discharge of pus and the corrupted animal. If the worm make at first its appearance near to the foot or the hand, the case is often tedious and difficult in whatever way we treat it. The worm surrounds the bones so that we must break it, but cannot extract it. The best method is to be patient, for in time, although we have lost sight of it for many days, it will appear again, and if it do not die and give rise to suppuration, it will retain its tendency to advance in the same direction in which it had begun to move. The part first protruded is I suppose the head of the animal, and its future progress though very slow and invisible, like the hour hand of a watch, becomes in time very sensible. It seems to wish to escape from its prison, perhaps to assume a new form of existence, but what its next state may be we are at present in perfect ignorance; nor do I know by what means we can trace it farther, for although it be extracted from the

body without apparent injury, it soon becomes rigid, after exposure to the air, and no longer gives any evidence of animation, or the power of motion. A future day, I have no doubt, will throw more light on the natural history of this extraordinary animal, which has the power, occasionally, of rendering us very unhappy, of sometimes depriving us of the use of a limb, and even of putting a period to our existence.

2. *Experiments on Bile.** The size of the liver, its being found in all animals, the effects of its derangements on general health, and various other considerations, have long induced us to smile at those physiologists who restricted its use in the animal economy to the elimination of some recrementitious matters from the blood, which elimination might be vicariously performed by other organs, as the lungs, without any great detriment to the constitution. The comparatively great size of this organ *in infancy*, when nutrition goes on in a more rapid manner than at any other period of life, and the great emaciation which so generally attends hepatic diseases, led us, at an early period of our professional experience, to conclude that the secretion of bile was intimately connected with chylification or the nutrition of the animal fabric. The experiments of our illustrious countrymen, Mr. Brodie, go directly to corroborate, or rather to prove, the truth of the above-mentioned conclusion. These experiments consisted in throwing a ligature around the ductus communis choledochus of an animal, so as to completely prevent the bile from entering the intestine, and then noting the effects produced on the digestion of the food swallowed immediately before or after the operation. These experiments were frequently repeated, and the results were uniform.

It may be proper to state that the operation of tying the choledoch duct in inferior animals, as the cat for instance, is easily accomplished, and at an expense of very trifling suffering; so that any derangement in the functions of the viscera, which follows, cannot reasonably be ascribed to the mere operation. The division of the parvagum near the cardia of the stomach, and the ligature of the whole extremity of the pancreas, which are operations of much greater difficulty and pain, did not at all interfere with the conversion of food into chyme, or that of the chyme into chyle.

In Mr. Brodie's experiments, which were chiefly on young cats, the production of chyme took place in the stomach equally the same whether the ligature was on the ductus communis or not. But the conversion of chyme into chyle in the intestine was invariably and completely interrupted, when the bile was prevented from mixing with the chyme by the application of the ligature. "Not the smallest trace of chyle was perceptible either in the intestines or in the lacteals." The intestines contained a semi-fluid substance resem-

* Mr. Brodie.—Journal of Science, Jan. 1823.

bling the chyme found in the stomach, with this difference, however, that it became of a thicker consistence in proportion as it was at a greater distance from the stomach, and as it approached the termination of the ileum, the fluid part of it had altogether disappeared, there remaining only a solid substance, differing in appearance from ordinary fæces. The lacteals, under this state of things, contained a transparent fluid, which Mr. Brodie supposed to consist partly of lymph, partly of the more fluid portion of the chyme which had become absorbed.

"I conceive," says Mr. Brodie, "that these experiments are sufficient to prove that the office of the bile is to change the nutritious part of the chyme into chyle, and to separate from it the excrementitious matter." Our author properly observes that, in the very few authenticated cases of total obliteration of the ductus communis in the human subject, there has always been extreme emaciation, showing that the function of nutrition was not properly performed, so that these cases form no objection to the conclusions which our author has drawn.

In the prosecution of this inquiry, a circumstance occurred which illustrates the great extent of the powers of nature in restoring channels after they have been interrupted or destroyed by ligatures or other foreign injuries. The ligature round the duct was always a single silk thread, the ends of which were cut off close to the knot. If the animal was allowed to live he became jaundiced, as was seen by the eyes and urine. But at the end of seven or eight days, there was an effort made by nature, in several instances, to repair the injury done by the operation, and to restore the passage of the bile into the intestine. When the animal was killed at the end of the period above mentioned, it was found that, on pressing the gall-bladder, the bile flowed from the ductus communis in a full stream, notwithstanding the previous ligature. On further dissection Mr. Brodie found that a mass of coagulable lymph had been effused, adhering to the ductus communis above and below the ligature, and to the neighbouring parts, inclosing a cavity in which the ligature was contained. The pressure of the latter had caused the duct to ulcerate, without adhesion having taken place of the surfaces which had been brought into contact—and the ligature having been separated, lay loose in the cavity formed by the albumen which had been effused around it. Into this cavity the bile might be made to flow from the upper orifice, and out of it into the lower orifice of the ductus communis—and thus the continuity of the canal intended for the passage of the bile was restored. The physiologist, Mr. Brodie remarks, will not fail to observe the difference between the effects produced by a ligature applied to an excretory tube, and a ligature applied to a sanguiferous vessel. This difference, however, is not invariably observed; for in Dr. Parry's experiments on the carotid of a sheep, it was found that new vessels were sent out from the carotid, traversed round the ligature or obliterated point of the artery, and re-entered the trunk of the same vessel again, thus completely restoring the course of the circulation.

3. *Laryngeal Disease.** Mr. Shaw was called to examine the body of a gentleman, who had died of the disease of the throat, the nature of which caused discrepancy of opinion among the medical attendants before death.

The early symptoms had been pain in the throat, with expectoration of blood, followed by difficulty of swallowing, and *copious puriform expectoration.* The physician first in attendance conceived that it was œsophageal stricture, with probable disease of the lungs. A surgeon therefore was employed to introduce bougies, which did no good. A consulting physician considered it disease of the larynx, and that the difficult deglutition might fairly be attributed to spasm of the muscles of the pharynx, produced by the contact of food with the diseased and irritable larynx—the source of the puriform expectoration. Had we never known the sequel of the case, we should have coincided with the opinion of the latter physician; because the symptoms were not those of stricture of the œsophagus, and we have generally, indeed almost invariably, observed difficult deglutition attend ulceration of the larynx.†

Acting on the new view of the case, opium was prescribed, and had an immediate effect in alleviating the dysphagia. The patient, however, gradually sunk, apparently from excessive irritation of the larynx, but with occasional difficulty of swallowing to the last.

Dissection. On opening the lid of the coffin, the emaciated living figure was changed to "a large bloated and putrid body," although the patient had been dead but 48 hours, the weather being cool. The tonsils and back part of the tongue were slightly eroded, as was the surface of the epiglottis. The sacculi laryngis were ulcerated, and the edges of the cordæ vocales were thickened and eroded. The lining membrane of the larynx was inflamed and thickened, the marks of inflammation gradually disappearing towards the bronchii. The lungs were very little affected. The upper part of the pharynx was ulcerated, but only in a very slight degree. There was no obstruction in the œsophagus.

Mr. Shaw attempts an explanation of the swelled, putrid, and emphysematous state of the corpse. He thinks the emphysema was produced by a difficulty or obstruction to the exit of the inspired air, "similar to what occasionally occurs in women during labour;" and that the sudden putridity was owing to the presence of this air in the cellular membrane of the body. We must refer to the origi-

---

* Mr. Shaw.—Med. and Phys. Journal, No. 283. Sept. 1822.

† We recently attended, in consultation with Mr. Cosgreave, of Surrey Street, the late Mr. Lewis of Chelsea, who died of ulcerated larynx, or rather we should say, of inanition from the difficulty of getting any thing into the œsophagus, without exciting the most distressing paroxysms of coughing. He was reduced to a mere skeleton before he died, though the *quantity* of expectoration was never profuse, nor in itself adequate to produce the effect described.—*Rev.*

nal paper itself for Mr. Shaw's reasonings and illustrations on the subject. We would just remark, however, that in those cases which fell under our own notice, the difficulty seemed principally to be in *inspiration*, rather than in expiration.

4. *Tonic Treatment of Phthisis.** Dr. John Hume has lately laid a paper before the Clydesdale Medical Society, in which we have seen many interesting remarks on that scourge of our country—phthisis pulmonalis. He relates several cases, where after the first inflammatory symptoms had subsided, gradually increased exercise in the open air, with nutrient, but mild diet, acids, and light tonics, effected a cure, even after purulent expectoration had appeared. He also gives a tolerable expose of Dr. Stewart's plan, which is not generally known to the profession.

Unless in the first attack of hæmoptysis, when every thing indicated strong inflammatory action, Dr. Hume always found that general blood-letting hastened the fatal termination of the disorder; whereas local bleeding was often serviceable, if the patient was not previously too much reduced. He has used digitalis with advantage in inflammatory cases, where there was not too much debility—but where purulent expectoration existed, it was worse than useless. Of astringents, he found kino, joined with opium, productive of good effect in lessening expectoration and repressing febrile action. In several cases the superacetate of lead and opium gave temporary relief, and never did any harm. The muriatic acid is also a useful medicine. "An excellent pectoral mixture is made with treacle, honey, vinegar, and laudanum."

"But of all the modes of treating phthisis, either incipient or confirmed, the tonic appears to me to be decidedly the best; and which, though it certainly cannot cure confirmed phthisis, prolongs the patient's life and renders him much less susceptible of those annoyances that unavoidably, for a long time, precede death. But, to be successful, this treatment must be commenced at a very early period. Then, provided there are no violent inflammatory symptoms, frictions, with cold vinegar and water, twice a day, on the breast, or the whole body, till the skin is quite dry, exercise in the open air, or on horseback, in a carriage, on foot, or in a swing, according to circumstances; nourishing, but plain food, taken at such intervals as not to load the stomach, with the occasional use of steel and bitters, are the most proper remedies. Pain in any particular part may be removed by the application of leeches, aromatic embrocations, blisters, or the tartar emetic ointment. From the few trials which I have made with this remedy, I am inclined to have a very favourable opinion of it; for when pustules have been excited

* Quarterly Journal of Foreign Medicine, &c. No. 17, for Jan. 1822.

by it, they have never failed to give wonderful relief to the internal symptoms, although they themselves may have occasioned very considerable irritation. In one case however, where even its frequent application failed to produce pustules, the patient complained of inexpressible anxiety and uneasiness in the epigastric region.

"The greater part of this plan, I confess, is borrowed from Dr. Stewart; although, long before I knew how he treated phthisis, I had appreciated the good effects of bracing remedies, and had employed many of them; and, in debility, or irregular action of the bowels, had often used, with the very best effect, a powder composed of crabs'-eyes, rhubarb, nutmeg, ipecacuanha, and ginger, given so as to prove gently laxative.

"Dr. Stewart was led to the peculiar practice which he has adopted in consumption from reflecting attentively on some of Dr. Gregory's statements, when lecturing on that disease. In the opinion of that celebrated physician—and, indeed, of that of many others—consumption, in the generality of cases, originates in a scrophulous constitution. What then is the cure, or the attempt at cure, in scrophula? Is it not to invigorate the constitution by a rich and generous diet, by exercise in a pure and open air, particularly near the sea side, and by the cold bath? If such be the mode of cure directed for scrophulous ulcers on the surface of the body, is it not natural to believe that ulcers of the lungs, probably arising from a scrophulous cause, will be equally benefited by a similar treatment?

"In cases where the skin glows with much heat, when the pulse is firm, strong and quick, with severe topical pain, Dr. Stewart sees, at once, the propriety of using the antiphlogistic regimen; and in this he entirely agrees with the far greater number of physicians. But, would he do so when the patient is enfeebled, where there is merely chronic inflammation, and where, though the pulse is quick, it is so only from debility? Surely we should not argue, from the patient having a quick pulse, that he should be put on a lowering diet, and use debilitating remedies. Is it not notorious that, on the approach of death, in very old or infirm persons, the pulse beats with a very increased quickness? When the heart has little ability to send forward its contents, its efforts, of course, are more feeble, but at the same time, they are more frequently made. That quickness of the pulse, then, and febrile heat, which are occasioned by ulceration of the lungs, in conjunction with chronic inflammation, cannot be cured, in the opinion of Dr. Stewart, by such means as will depress the general vigour of the system. If a patient, of an emaciated habit, with feverish symptoms, had foul ulcers on his limbs, would any one of our modern physicians prescribe bloodletting and purging as the best means of curing him? Or would he direct all his attention to the very slight inflammation at the edges of the ulcers, and neglect entirely the constitutional derangement? Would he not try rather, by a nourishing diet, mild cordials and bark, to invigorate the system, that the vessels may recover their native tone, and, instead of a vitiated secretion depending on debility, be enabled to exude a healthy lymph, which may form granulations

and consolidate the diseased surface? The very same thing Dr. Stewart wishes to effectuate in cases of internal ulceration and debility. In consumption, he gives nourishing diet, pure or diluted wine, bark, steel, and other tonics; he uses exercise on horseback or in a carriage, or in any other practicable mode; and he employs friction with vinegar and cold water; all with the design of bracing the system, and enabling it to assume that healthy action which alone can render it capable of resisting the sudden vicissitudes of our climate. In short, if he cannot make the weather suit his patient, Dr. Stewart tries to make his patient invulnerable to its attacks. He has been accused of giving wine and beef steaks to a person who is spitting blood, and at the same time under the influence of strong arterial action. So far from this being the case, he would be amongst the foremost, in such cases, to recommend the antiphlogistic regimen, and even to administer digitalis, a medicine which he unequivocally condemns in phthisis. But even in chronic inflammation, and ulceration of the lungs, he approves of blistering, and makes no opposition to the occasional employment of topical blood-letting. He pays the utmost attention to the regular evacuation of the bowels, and at the same time, takes great care not to give heating cordials."*

When the foregoing observations are viewed in connexion with the investigations of Laennec and Baron, who contend that the softening down of pulmonary tubercles is *not* a process of inflammation, they will not be found devoid of interest. We should bear in mind, however, that the irritation of tubercles very generally causes inflammation in the surrounding parenchymatous structure of the lungs, and that therefore we have to guard against *this*, while we act on the tonic or any other plan calculated to fortify the general constitution and arrest the scrophulous process in the tubercles themselves.†

5. *Prolapsus Ani.* In the October number of the Journal Universel, M. Dupuytren has proposed a mode of curing prolapsus ani, which he has put in execution several times with success. He was led to the operation by observing that the excision of piles frequently cured the prolapsus, which often is an attendant on that complaint. The operation consists in cutting off a greater or less number of the projecting folds that protrude beyond the verge of the anus by means of a ligature-forceps, a little flattened at one end, and a pair of scissors, curved on the flat side. He seizes them at an inch and a half from the anus, and cuts them off as much forward as possible in passing towards the rectum. This operation, he observes, contracts the opening of the rectum, somewhat in the same manner as the strings shut a purse, and thus future prolapsus are prevented.

* Quarterly Journal, p. 148-9.

† See what we have said at page 801 of the last volume.

6. *Ununited Fracture.** These unpleasant accidents are sometimes, no doubt, the consequence of negligent treatment, in not keeping the limb quiet, and the bones in contact; but we believe they are more frequently the effect of some idiosyncrasy of constitution or mal-habit of body.

Case. Mr. C of Teignmouth, fractured the left humerus near the insertion of the deltoid, in August 1820. Nothing particular occured till the removal of the splints, when it was found that no union had taken place. He was 30 years of age, and had enjoyed good health, In May 1821, he came under Mr. Earle's care. The broken ends of the bones were quite moveable, and the superior portion was drawn in towards the axilla, and not apparently in close coaptation with the inferior.

"While I was examining him, I was surprised to find that the integuments of the arm and fore-arm, in the space of a few minutes became covered with urticaria. On remarking this to him, he stated that he had been subject to this affection for many years; that he never suffered in his health from it · and that the slightest irritation, and even the friction of his clothes, would at any time produce it. This led me to be very particular in my inquiry into the state of his general health, and his various secretions. He had an unhealthy sallow aspect. he perspired profusely, and his perspiration had a peculiar fetid smell, and stained his linen of a brownish tint. His appetite was good, and he slept well; but his bowels were very irritable. Fermented liquors, such as beer and cider, or any irregularity of diet, produced a copious deposit of lithate of ammonia in his urine; although he was not sensible of any dyspeptic feelings, and conceived himself in health. His common beverage was cider. I recommended him to have a seton passed through the arm, between the ends of the bone; which, on a revision of all the circumstances of the case, I was led to hope might be attended with success. I further recommended him to take the opinion of Mr. Brodie, who concurred with me in the propriety of the measure." 192.

The seton was passed, and it was discovered that the fracture had been oblique, with a projecting point occupying the outer part of the inferior portion. Considerable inflammation and a copious discharge of offensive matter followed, with a good deal of fever and constitutional disturbance for some days. Some tumefaction of the soft parts around the fracture took place, and gave hopes of union. No union, however, occurred, although every attention was paid to the general health and to the local coaptation of the bones. The seton was therefore withdrawn at the end of seven weeks. Mr. Green now suggested the application of caustic potash to the ends of the bones. This was done, and some exfoliation took place, while a thickening around the fracture assumed a very firm feel, bearing all the charac-

* Mr. Henry Earle.—Med. Chir. Trans. vol. xii.

ter of callus. This, however, became ultimately absorbed, and the limb was once more as weak and useless as ever.

Some other cases are related to show the probability of a peculiar idiosyncrasy being the principle cause of these non-unions.

---

7. *Bronchocele.** Mr. Austin has made a comparative trial with the concentrated tincture of iodine, and the burnt sponge lozenges in bronchocele. The patients were two sisters in the same family, and apparently in an equal degree affected. The iodine was more effectual than the sponge, and more speedy in reducing the thyroid tumour.

---

8. *Enteritis.*† Mr. Wade, Apothecary to the Westminster Dispensary, has published two cases of enteritis, one of which was fatal, and the other was cured. The appearances on dissection are clearly detailed, but exhibit nothing new. We should not have noticed these cases, were it not for the purpose of observing that medical men now-a-days trust too exclusively to sanguineous depletion in enteritis, and neglect certain powerful auxiliaries. If, when they have bled copiously, and as far as the patient's strength will bear, they exhibit the submur. hyd. in combination with opium, they will have the satisfaction of saving many lives. This has long been our practice—and we know it to be the successful practice of one of the first hospitals in this metropolis.

---

9. *Dilatation of the Female Urethra.*‡ There is a very general prejudice generated in the human mind against the knife, where other means, though more slow and painful, offer a chance of success. It is very praiseworthy in Sir Astley Cooper, whose dexterity with cutting instruments is tolerably well ascertained, to exercise his invention in superseding, on some occasions, the very instruments by which he has gained so much of his celebrity.

The dilatability of the female urethra has been proved by papers in the transactions under review, from the pen of Mr. Thomas, Mr. Travers, and Sir Astley himself. The latter has here endeavoured to show a better means of producing this dilatation, than by the introduction of sponge tents, which is liable to the objection of requiring several hours of pain and retention of urine while lying in the meatus. This inconvenience suggested to Sir Astley the

---

* J. B. Austin, Esq. Med. & Phys. Jour. 284. † Ibidem.

‡ Sir Astley Cooper, Mr. Birt, Mr Chapman. Medico. Chir. Transactions, vol. xii.

utility of an instrument constructed on the plan of a speculum ani to enlarge the urethra, which would have the advantage of permitting the urine to escape meanwhile. An opportunity was soon afforded in the case of Mrs. M'C. a lady who had for six months been labouring under extreme irritability of the bladder, and such pain and difficulty in making water as induced suspicion of stone. On examination stone was discovered, and Mr. Weiss of the Strand, quickly constructed an instrument which answered the purpose, and an engraving of which is given. On the 7th of January, 1822, Sir Astley, in the presence of Dr. Nuttall and Mr. M'Nab, introduced the dilator at eight o'clock in the morning. At four P. M. Sir A. removed the instrument, and readily felt the stone with his finger. The forceps were introduced and the stone extracted. For a few days after the operation, the patient experienced a severe attack of irritative fever, which was subdued by the usual antiphlogistic means, and our author had the pleasure of seeing his patient gradually restored to health, having never lost the power of retaining her urine. From the facility with which the meatus dilated, Sir Astley thinks there was no absolute necessity for allowing the dilator to remain so long in the passage, and is therefore determined in future to use the dilator for a few minutes only.

Case 2. A lady, a patient of Mr. Scott of Bromley, having been subject to retention of urine, was in the habit of introducing the catheter herself, but broke it one day, leaving a portion in the bladder. Sir Astley introduced the dilator for a few minutes and then the forceps, by which he extracted the broken piece of catheter.

The advantages of this operation over lithotomy are very conspicuous. In the first place, it requires but a very moderate knowledge of anatomy. Secondly, it is attended with little danger, unless the dilatation be violently made. Thirdly, the operation may be accomplished with comparatively little pain. If the stone be large, Sir Astley thinks the dilatation should be gradual, and repeated for a few minutes or hours every day, till a sufficient extension is accomplished. Fourthly, its greatest advantage is in the preservation of the power of retaining the water, which that by incision does not always do.

To Sir Astley's paper an Appendix is added, containing communications from Mr. Chapman of Wandsworth, and Mr. Birt of Diss in Norfolk. Mr. Chapman was enabled to extract a female catheter, which slipped into the bladder while a surgeon (not Mr Chapman) was drawing off some urine, by means of his finger alone. In Mr. Birt's case a calculus was perceived in a female, and by means of two probes the meatus urinarius was so far dilated as to admit a pair of forceps, by which two calculi were successively extracted.

We hope soon to be able to communicate the particulars of a case, where Sir Astley extracted a stone from the male bladder through the urethra, of considerable size, viz. nearly an inch in the

longest diameter, and more than half an inch in the shortest. The stone we have seen.

P. S.—This case and others have since been read to the society. A report was spread in some of the surgical circles, that both the instrument and operation were circumstantially detailed by Fabricius Hildanus 200 years ago. The Editor of this Journal, produced to the society the original drawing of Hildanus, and read the text that accompanied it, from which it appeared that no foundation whatever existed for the charge of plagiarism; as Hildanus's instrument was merely for extracting small calculi from the *urethra*, and he never even alludes to the subject of extracting them from the *bladder*.

---

10. *Carcinoma Mammæ.** Mr. Bell, from his official situation, is required to visit regularly a numerous class of female patients suffering from cancer—a disease that does not make a silent and gradual progress, leaving gleams of hope in the tortured bosom till the last; but one that, as Mr. Bell justly observes, is striking and monstrous—filling the mind with horror not to be concealed—the patient dying daily, and conscious that she is dying? yet how seldom does the pressure of pain, or the palpable approach of death elicit from these unfortunate and *practically* philosophic sufferers any expression of impatience or complaint! "They are on the contrary, calm and placid, if not cheerful, giving an example of unostentatious resignation, and the blessed influence of religion—by witnessing which, the mind naturally reverts to the boasted instances of philosophy in the other sex, which are as nothing in comparison."

Mr. Bell remarks, and no doubt with great truth, that many hopeless cases of local disease, under the name of cancer, are sent into the Middlesex wards—some of them tractable, others incurable. An important object is, therefore, to alleviate pain, prolong life, and render the disease bearable—to distinguish diseases of a different nature, to know when to use the knife, and when to avoid severe and formidable operations. Mr. Bell proposes, first, to present a history of true carcinoma—then to give the character of other diseases which differ in some circumstances, but are of the same formidable nature—lastly, to return to the consideration of the character and changes of the more common form of the disease, for the purpose of instancing the mistakes to which we are liable in treating it.

1. *Carcinoma Mammæ.* Age has influence on all carcinomatous tumours. They will run their course rapidly in a woman of 45, while they will remain stationary for years, in a woman of 60 or 70 years of age.

---

* On the Varieties of Diseases comprehended under the Name of Carcinoma Mammæ. By Charles Bell, Esq. F. R. S. Ed. Surgeon to the Middlesex Hospital, &c. Med. Chir. Transactions, vol. xii.

"In an old woman, the carcinoma will present one or two small tumours exceedingly hard, and attached to, or incorporated with, the wasted mamma, and with the pectoral muscle. The skin over these tumours will become attached, the surface will become discoloured and livid, and will exhibit a great degree of venous vascularity.

"These hard lumps will remain very long stationary, having a rosy surface slightly ulcerated. The ulceration will indeed sometimes close, and the tumour remain inactive, while a constitutional disease is making slow progress. The patient, excessively extenuated, will at last sink, from the continuance of a peculiar hectic, attended with pains in the lower part of the spine, hips, and shoulders." 216.

2. The true carcinoma belongs to the turn of life. The mamma sympathises with the condition of the uterus—pains strike through it—it swells—the turgescence and tension subsiding, a more partial hardness is left, with irregular margins mixing with the substance of the breast, and progressively extending till the whole gland is involved in a tuberculated or knotty condition. Large blue veins become apparent on the surface; and in the mean time the patient's strength and flesh decline.

The nipple is now drawn in, and incapable of erection, and ultimately the skin is puckered in, the whole adhering firmly to the mass below. Hæmorrhage from the nipple is an occasional occurrence and an unfavourable symptom. The axillary glands are early affected in such cases.

"A true carcinoma may begin very differently, and exhibit a different exterior character. A small hard tumour is felt deep seated in the mamma. It is difficult to distinguish whether or not it is a part of the proper gland. Its progress is generally this: it becomes painful, it draws nearer to the surface, it becomes attached to the mamma and to the skin, and is gradually incorporated with them. The skin becomes discoloured, the surface becomes moist, and the patient is alarmed lest a sore should break out.

"It does ulcerate, and begins to discharge. The bottom of the sore is foul and sloughy, the smell is offensive, and the constitution sympathises with the state of the sore.

"The whole gland is now hard, and adhering to the pectoral muscle. The edges of the sore are particularly hard, of a dark red, and have a glazed appearance. The edges have not risen with everted and curling margins: they are rather depressed under the general convexity of the tumour, and, as it were, condensed into a smaller volume. This will certainly be the appearance presented in a fat woman."

In proportion to the depth of the ulcer the surrounding hardness extends, and, when grasped, it feels like stone.

3. The disease commencing in the mamma, will sometimes propagate itself by building up its peculiar structure in the cutaneous tissue

rather than in the glandular. Tubercles will be felt in the skin around the nipple, extending to the breast, neck and shoulders. These tubercles become painful, and are soon attached to the skin. They first assume a high red colour, then a yellowish transparency in the centre, ultimately opening into a corroding and wasting ulceration.

4. Another form of the disease is when the breast presents a tumour elevated, tuberculated, and remarkably firm, without elasticity, and fixed to the side. The surface is granular, and of a deep or dark red colour, with a bluish cast. This tumour ulcerates and sloughs—bleeds profusely—is propagated by tubercles under the skin towards the sternum and clavicles. Effusion into the chest is an early accompaniment of this form of disease.

5. *Impostumated Cancer.* A deceptious appearance sometimes takes place in the progress of cancer.

The mamma not yet ulcerated, will swell, soften, point, and finally burst, with all the appearance of a scrofulous abscess, thus affording a hope that the disease is not of a malignant nature. But a large sloughy and foul chasm is presently disclosed; the surrounding parts become harder and tuberculated—the edges get everted —and real cancer is established.

6. "It is important," says Mr. Bell, "to observe the variations in the aspect of cancer. The local disease makes its progress in two ways: 1. by *ulceration*, that is by absorption; 2. by *mortification*, and sloughing of successive portions. And accordingly the aspect of the sore varies in a very remarkable manner. To-day, the symptoms shall be mild, the matter bland, and the breast altogether in a tranquil state: to-morrow, it will be full of pain and tumid, the discharge thin and corrosive, certainly acrid, the edges of the sore sharp and of a fiery redness, and the bottom full of sloughs.

"But this will not continue; the excited action will again subside; once more the ulcer appears clean, and shows a disposition to heal, and even to cicatrize. Sometimes a cancer will close, and be quite healed; but the skin, though closed, is not sound, it is too vascular and of a dark lake colour, and the parts beneath are hard and irregular." 222.

7. *Constitutional Condition.* This is melancholy enough. Great bodily suffering and mental misery—hectic fever—emaciation—countenance pale and anxious, with a slight leaden hue—features sharp—lips and nostrils slightly livid— pulse frequent—pains lancinating, and in the exposed surface burning sore—pains, like rheumatism, extending over the body, especially to the back and lower parts of the spine, then the axilla—swelling and immobility of the corresponding arm—in process of time, nausea and indigestion—tickling cough—severe stitches in the side—pulse becoming rapid and fluttering—breathing anxious—these are the phenomena that attend the victim of cancer in its fatal career to death.

8. Mr. Bell describes an hydatid carcinoma mammæ which, when

the disease assumes its full volume, presents a very remarkable appearance.

"The tumour stands prominent; its base, that is its connexion with the side, is not the place of its greater diameter. It measures less round the base than a little removed from the side. It is not hemispherical, but of a squared or angular form. The nipple is not drawn in, but stands prominent, and with a natural appearance. The veins upon the surface are of a great size, and yet perhaps only bear a relative magnitude to the tumour. The tumour to a very late stage is loose from the pectoral muscle. It is irregular, and not equally soft or elastic; the elasticity, at certain points, is so considerable as to distinguish it from the common carcinoma.

"In operating on such a tumour, it is much easier to turn it off from its connexions than to dissect out a common carcinoma. It is, however, a bloody operation, for many branches of arteries require to be tied.

"This tumour when cut into, does not exhibit a concentrated mass, but is distinguishable into parts or clusters of lesser tumours. When these subdivisions are cut into, they present the most common carcinomatous appearance, being firm in texture, and having the ligamentous bands both forming areolæ and diverging lines, and these are distinguishable by their whiteness from the matter they embrace. In the interstices of the tubercles, some larger bags or cells are found, of a yellowish or amber colour. These cells are of various sizes, and the larger ones contain a dark fluid like blood, or bile." 225.

This species of carcinoma makes its attack at the climateric period—is slower in its growth—and the mass may be extirpated with more sanguine hope of permanent advantage.

9. *Acute Carcinoma Mammæ.* This form is more rapid in its course, and severe in its symptoms than any of those before described.

"It begins in a hard tumour or kernel deep-seated in the mamma. At first it is loose, and slips about under the finger. After a month or two it becomes attached to the skin and the surface is discoloured. The hardness extends to the whole breast, but some one part projects and is more discoloured, exhibiting a purplish red colour The surface is shining and elastic, as if it contained a fluid. During this stage the pain is severe, and the tumour shoots like a whitlow.

"The breast now enlarges, not uniformly, but in successive divisions of the tumour; and as it extends, the structure of the skin is evidently affected, and partakes of the disease. The glands of the skin appear to be enlarged, and the surface becomes studded with small white spots, and as the dark red swelling increases, these spots become more distinct. On the most projecting division an oozing takes place; it promises to suppurate, but no proper suppuration is established. Suddenly the whole tumour swells and inflames with more threatening redness, and increase of pain. Now the countenance indicates pain and anxiety. The skin has a suffused yellowish hue, and the patient feels great lassitude and prostration.

" At this stage the disease is hardly to be distinguished from the fungous tumour to be next described; but when it opens and displays its last horrid aspect, it is sufficiently distinct. After much pain, the enlarged tubercles of the skin become black on the points and break, and discharge a little blood; and after this, serum drains through the dressings. Suddenly the surface becomes extensively sloughy, and the breast is deeply excavated." 227.

10. *Acute Fungous Tumour of the Mammæ.* It is necessary to be acquainted with this form, in order not to give false prognosis of the disease. The patient, instead of lingering out four, five, or six years, may be hurried to the grave by this species in as many weeks.

The tumour occupies the whole gland—the base is hard and firmly attached to the pectoral muscle—the tumour and its inflammation are characterized by a dark purple or lake colour—it seems about to point in three or four places—the surface then becomes intensely red—and of a granular appearance. When it opens, instead of a fluid, a soft fibrous substance is disclosed, which bleeds—the pain is throbbing and burning—the patient becomes weak, hectic, and yellow—and she sinks rapidly, probably after losing a quantity of blood from the accidental disturbance of the fibrous projectory substance.

11. *Structure of Carcinoma Mammæ.* On cutting through the true carcinoma, we are struck with the density of its composition. A hard centre is seen, with firm white bands diverging from it, and communicating so as to form meshes, between which a distinct substance, a new matter is found. Although the fibrous bands and the intervening soft matter are new textures, it is difficult to say which has the priority in point of formation. Mr. Bell is inclined to think the firm bands are first formed, and that the softer substance is afterward secreted and deposited within the embrace of the meshes.

" As it is the constitution of many of the natural organs to remain as it were suspended in their growth, and at a certain period to assume activity, and fully develope themselves; so, unfortunately, cancerous tumours have the laws of their constitution; and after a period of deceitful indolence, they acquire activity, and the structure, which was before too dense for inspection, is fully blown and developed." 231.

A question of great practical importance naturally arises here—is there any appearance which, during life, will indicate how far these radiating bands or filaments may have shot, in order to determine the propriety of an operation? It is but too certain, Mr. Bell observes, that they may have shot far beyond the irregular hardness of the tumour, as felt externally. " But the retraction of the nipple will indicate the general extent of these bands."

" It is of much importance to ascertain the cause of the retraction of the nipple. It is produced by the peculiar carcinomatous texture of filaments, which rise up from the original centre of the disease

and extend between the ducts of the nipple; these by condensing and destroying the spongy texture of the part, cause its retraction. Now, it unfortunately happens, that by the time these ligamentous bands have, by extending in one direction, produced the retraction of the nipple, they have, in another, extended into the cellular membrane, beyond the margin of the gland." 233.

We daily see, he says, the operation of extirpation determined on, *because the nipple is retracted, and because true cancer is thereby announced.* Yet to him it is quite clear, that if the nipple be fully retracted for any considerable time, the operation has been too long deferred.

We have thus given a very full account of Mr. Bell's paper, because the subject is important, the author's field of observation is extensive, and his powers of discrimination are unquestionable.

---

11. *Diabetes Mellitus.** Dr. Heineken, of Madeira, has published a case of diabetes mellitus in our respected cotemporary, where the patient had fallen away from being robust to a state of great emaciation. He was passing eight or ten quarts of urine daily of a saccharine quality, and had the usual symptoms of diabetes. The following pills were ordered: pulv. scammon. ℈j. pulv. opii, ℈j. hydr. submur. gr. v. ant. tart. gr. ij. To be made into twelve pills, one to be taken three times a day. A warm bath every night—the chest, arms, and abdomen to be rubbed well with sweet oil every morning. The food to be entirely animal. This treatment, with little variation, was continued from the 3d of June to the 17th July, when it was noted that the patient perspires freely—that the urine is healthy—that the quantity is about three quarts daily. A nearly similar mode of treatment, however, was continued till the 8th of October, when he was considered as cured. The quantity of solid opium taken during the treatment was about six hundred grains; and during eight days of that time, he took fifteen grains daily.

---

12. *Tetanus cured by Ol. Tereb.*† Mr. Hutchinson has stated a case, in a much respected cotemporary, of tetanus occurring without any evident cause, in a man long afflicted with epileptic attacks. He was a prisoner in the Nottinghamshire House of Correction. Mr. H. finding, on his visit one morning, that the patient presented most of the usual phenomena of tetanus, he abstracted 30 ounces of blood, and exhibited fifteen grains of calomel and two grains of opium. Next was administered a brisk purgative enema, containing one

* Dr. Heinekin.—Med. Repos. No. 112.

† B. Hutchinson, Esq.—Med. and Phys. Journal, No. 288.

ounce of the oleum terebinthinæ, while a large blister was applied to the back. The enema taking no effect, half an ounce of the turpentine was ordered by the mouth every two hours. Next morning our author was agreeably surprised to find that the patient could open his mouth, and that the whole of the tetanic symptoms were dispersed. He had taken, in all, two ounces of the turpentine, which freely evacuated his bowels. We would hint our suspicion that the case was not one of real tetanus, from the great facility with which the symptoms gave way. However this may be, we have nothing to object to the mode of treatment employed.

13. *Oxalic Acid.** A paper evincing much discrimination, zeal, and patient labour, has lately been read before the Medico-Chirurgical Society of Edinburgh, and published in our highly respected cotemporary, for April, of the present year. We can only present our readers with an abstract of the more interesting and prominent features of this experimental essay.

It is well known that oxalic acid has long been used, *in small quantities*, as an ingredient in lemonade, and without any deleterious effects. Its poisonous qualities appear to have been first pointed out by the late Mr. Royston, in 1814. In the succeeding year, Mr. Thompson made some interesting experiments on this acid, and seems to have been the first to ascertain one of the best antidotes—chalk.

The authors of the present paper made many experiments on animals, and enter fully into the question respecting the modus operandi of the poison on the stomach and general system. The following conclusions were drawn from these experiments.

"1. Concentrated oxalic acid renders the mucous epidermis brittle and less adherent. It dissolves the other coats; but during life, this action never extends beyond the surface of the corion, and seldom so far; hence its action on the living system is more like that of the pure irritants, producing extravasation of blood within the tissues, and into the cavity of the stomach, and little chemical decomposition.

"2. But its action on the dead stomach is so rapid, that, if the examination of the body be delayed a few minutes, the whole corion, and even the other coats, will be found dissolved; and the diluted acid will also have the same effect, though more slowly. Hence it is easy to explain why Mr. Thompson, in his experiments, found so much apparent corrosion. In fact, he always allowed an interval to elapse sufficient for the acid to act extensively on the dead tissues.

"3. The chemical action of oxalic acid is not owing, as Mr. Thomson conjectures, to mutual decomposition of the acid and sto-

* Drs. Christison and Coindet. Edinb.—Journal. April. 1823.

mach; it is one of pure solution, in which the acid and the animal principles of the tissues remain unaltered." 170.

Another series of experiments were made to ascertain whether the deleterious properties of the oxalic acid were impaired or increased by dilution—and it appeared that dilution rendered the poison infinitely more speedy in producing death than when in a concentrated state—and this, in general, without leaving any cognizable trace of organic change in the textures of the stomach to which the acid was applied.

The next subject of inquiry was whether these effects could be attributed to a sympathetic impression conveyed by the nerves from the stomach to distant organs—or by absorption. Our authors come to the conclusion, that when the stomach is organically deranged by the poison, the brain, heart, and other parts, are *sympathetically* affected, but that when the impression on the stomach is unattended with any cognizable trace of the application of the poison, then the other organs are affected by *absorption*. Neither the experiments nor the arguments appear at all convincing to us—and this hair-breadth distinction seems to be a refinement of a very equivocal character. At the same time we do not doubt the fact of absorption occasionally taking place, since death is produced by the introduction of the poison into various other textures of the body, as the peritoneum, pleura, cellular tissue, &c.

Our authors made numerous experiments with the view of detecting the oxalic acid in the blood and other circulating fluids—but "they never could detect the slightest trace of oxalic acid even in the vessels nearest the seat of absorption." They also examined the chyle in the thoracic duct, after the poison had been introduced into the intestines, but with no better success. On this point, therefore, they are at direct variance with Mr. Thomson and Dr. Perey, who affirm, that when the poison was introduced into the stomach or rectum, the blood in the meseraic veins, in the lungs, and in the heart, frequently reddened litmus paper. Considering how many other unequivocal proofs of absorption are given by our authors, it certainly seems not a little surprising, as they themselves acknowledge, that no atom of the absorbed substance could be detected in the circulating fluids. They think the decomposition, and consequently disappearance of the poison, most probably takes place in the lungs.

Another subject of investigation is the inquiry on what organs is the power of the poison exerted from sympathy or absorption. The symptoms and dissections led our authors to the conclusion that these were the spine, the brain, the heart and the lungs. The order of the phenomena indicated that the primary action of the poison was on the spine and brain—and that the heart and lungs were affected secondarily through injury done to the nervous system.

Our authors next proceed to a history of the poison, as far as relates to the human subject. This history is very defective, for there are not above a dozen of cases recorded in medical works—and but few of them accurately and circumstantially detailed. The following,

however, is a summary of our knowledge of the symptoms and post mortem appearances.

Of all poisons (excepting perhaps the prussic acid) the oxalic acid is the most rapidly and unerringly fatal. The first symptoms are burning pain in the stomach, vomiting, commonly of dark matters, and without relief. Death generally happens too soon for the occurrence of gastritis: indeed, inflammation of the stomach does not seem to be a natural consequence of the introduction of oxalic acid. The bowels are seldom affected. The vascular system suffers great depression. The pulse, in almost every case, became imperceptible, accompanied by deadly coldness, clammy sweats, and sometimes livor of nails and fingers. Most of the patients, whose cases are recorded, experienced great disorder of the nervous system, and convulsions usually terminate the scene.

In respect to post mortem appearances, the accounts are very contradictory, but they may probably be reconciled by attention to the time intervening between death and dissection. The brain has rarely been examined in these cases, and we find no accounts of the state of the lungs, heart, or blood. The stomach has generally been found to contain a quantity of fluid, of a thick and viscid, or dark and coffee-ground appearance, probably consisting of extravasated blood altered by the poison. The state of the membranes of the stomach is very different, according as the poison has been concentrated or diluted, and according as the examination has been soon or late after death.

In respect to the treatment, little that is satisfactory has been obtained, since, unfortunately, the effects of the poison are generally beyond the control of art before medical aid can be procured. "Yet neither the chymical action nor the absorption of the poison is so rapid as not to be obviated by the prompt employment of certain remedies." The general rule in tixicology, that of attempting to dislodge the poison from the stomach, is here inconvenient or dangerous: for the time lost in administering emetics would be fatal to the patient. Even the mode lately recommended of extracting the poison from the stomach by means of a syringe would be too tedious. The substances proposed, therefore, as antidotes, are alkalis, chalk, and magnesia. The first are inadmissible, not only as being too acrid and corrosive for the gullet and stomach, but also as being poisons themselves when combined with the oxalic acid, in the form of alkaline oxalates. In respect to chalk, Mr. Thomson found that the oxalate of lime produced no inconvenience when exhibited to animals, and that chalk itself, given after the dangerous symptoms had begun, speedily removed them, and restored the animals to health. Magnesia, however, whose oxalate is equally as insoluble in the stomach as the oxalate of lime, is preferable to all other antidotes, as it is free from the inconvenience of setting loose a great quantity of fixed air, which is extricated when chalk is used. Nevertheless, chalk should be exhibited whenever it can be procured quicker than magnesia.

As to the after-treatment little need be said, as the practitioner

must act according to the symptoms. As the oxalic acid occasions a remarkable depression of the nervous and vascular energy, it is probable that stimulants will generally be proper, especially as inflammation does not seem to be a common sequel of the application of the poison to the stomach.

With respect to medico-legal researches, when oxalic acid has been swallowed, we can only make room for the following extract, touching the process to be employed for analysing the suspected matter.

"The stomach is to be washed with pure water, and if disorganized, preserved for analysis. The washings, the contents of the stomach, the vomited matter, and the disorganized tissues and suspected articles of food, are to be boiled separately, a little pure water being added if necessary. If chalk or magnesia has been used as an antidote, what remains on the filter (except that from the tissues) is to be preserved for analysis. The filtered fluid is to be tried first with litmus paper, and then by the three following tests—the hydrochlorate of lime, the sulphate of copper, and the nitrate of silver.

"1. Decolorize the fluid, if necessary, with chlorine. The hydrochlorate of lime, dropped into a solution containing oxalic acid, or an oxalate, especially the latter, throws down an insoluble oxalate of lime. But it also precipitates with the carbonates, sulphates, phosphates, tartrates, citrates, and with all their acids but the carbonic. The following mode of procedure will serve to distinguish it from these substances. The nitric acid will not take up the sulphate of lime, but a few drops of it dissolve the oxalate. The hydrochlorate acid will not dissolve the oxalate, unless added in very large quantity, while two or three drops will take up the carbonate, phosphate, tartrate, or citrate.

"2. Decolorize a second portion of the fluid with chlorine. The sulphate of copper precipitates oxalic acid bluish-white, and the oxalates pale blue. This is a test sufficiently delicate, especially if any free oxalic acid is previously neutralized with potass; and it is also a very useful one, since the sulphate of copper does not affect fluids that contain sulphuric hydrochloric, nitric, tartaric, citric acids, or their ordinary salts. But it precipitates the carbonates, and throws down phosphoric acid, whether free or combined. The oxalate, however, is easily distinguished; for it is insoluble in hydrochloric acid, while a few drops of that acid at once take up the phosphate or carbonate.

"3. The nitrate of silver produces a heavy white precipitate with oxalic acid, and still better with the oxalates; and this precipitate, when dried and heated over a candle, becomes brown on the edge, then of a sudden fulminates faintly, and is all dispersed in white fumes. When impure, it deflagrates like gunpowder, and when in too small quantity to be collected, the filtering paper burns, as if steeped in nitrate of potash. This is a very characteristic and delicate test. From a quarter of a grain of oxalic acid dissolved in 4000 parts of water, we have procured enough of the powder to show its fulmination twice. The precipitation alone cannot be trusted to;

for it may equally take place with hydrochloric, phosphoric, citric, or tartaric acid, and likewise with the alkalis. But when the test of fulmination is tried, there is no chance of its being confounded with any of these, except perhaps with the tartaric and citric acid. The compounds of these acids with silver, we find, possess properties, that will render the nitrate of silver one of the simplest and most correct tests for distinguishing them from each other, and from oxalic acid. The nitrate of silver becomes brown under exposure to heat, froths up, then deflagrates slightly, with the discharge of white fumes, and a large quantity of dull, ash-gray, crumbling matter remains, of a very peculiar fibrous structure. The tartrate of silver becomes brown, and froths up like the citrate, white fumes are discharged without even deflagration, and there is left an ash-coloured botryoidal mass, encrusted outwardly with silver.

"If magnesia or chalk has been given as an antidote during the patient's life, the oxalate of magnesia or lime may be mingled, in the form of powder, with the contents of the stomach, or with the vomited matter. The powdery matter is then to be separated by elutriation from what remains upon the filter during the previous process. If magnesia has been the antidote employed, it is only requisite to boil the powder in pure water for a few minutes, and then subject the filtered fluid to the three tests described above. For the oxalate of that earth is sufficiently soluble to furnish, even with a single ounce of water, a solution in which all the foregoing characters may be observed. If the antidote employed has been chalk, then the powder is to be boiled for 15 minutes, with half its weight of pure subcarbonate of potass, dissolved in 20 or 30 parts of water. A mutual interchange then takes place, and the solution contains oxalate and carbonate of potass. In applying the tests to this solution, the free alkali is to be previously neutralized with hydrochloric acid, when hydrochlorate of lime or sulphate of copper is to be used, and with nitric acid, before using the nitrate of silver. In the last case, there ought to be as little excess of acid as possible, because the oxalate of silver is soluble in nitric acid." 198.

---

14. *Vaccine Disease and Measles.** We apprehend that the Hunterian dogma respecting the incompatibility of two processes or constitutional diseases at the same time, is now nearly obsolete—at least that the rule is far from being absolute and without exceptions. We have very lately seen two cases of chicken-pox (or it may have been modified small-pox, for the children had been vaccinated) coexisting with well marked measles. We are ready to admit, however that it is sometimes exceedingly difficult to distinguish between eruptive diseases. Measles, and even scarlatina, will sometimes throw out a miliary, nay, a varioloid or pustular eruption, very puzzling and perplexing to the practitioner. The case before us was

---

* Mr. S. Gilder.—Med. Chir. Transactions, vol. xii.

one of a child vaccinated in a house where the brothers had measles. On the third day from vaccination the child itself exhibited the morbillous eruption. On the fourth day the punctured arms showed that vaccination had taken—and, in short, both diseases went through the regular stages quietly and amicably together.

---

15. *Ascarides.** Dr. Howison, of Edinburgh, proposes a manual or surgical operation for the removal of ascarides. The patient is to place himself in a semi-bent position by leaning forwards, and then to introduce the middle finger of his right hand, well smeared with tallow grease or hog's lard, up as high as he can into the rectum, and then scoop out, as it were, the infesting vermin from the inner surface of the gut. This operation is to be repeated every evening till the enemy is completely dislodged.

---

16. *Petechiæ Hæmorrhagicæ.*† An interesting case of this disease lately happened in the practice of Mr. Pretty, a very intelligent surgeon, of this metropolis. The patient was a little girl, nine years of age, who had spent six years of that time in the West Indies, whence she lately returned. On the 1st of February, 1823, she appeared a little unwell, and on the 2d, was attacked with sickness, severe pain in the epigastric and umbilical regions, some thirst, and fever, tongue furred, pulse accelerated, respiration quickened, with headache, and vomiting of every thing taken. Some calomel, colocynth, and extract of poppy ordered to open the bowels. 3d. Bowels not opened, but the gastric irritability much lessened. A cathartic mixture procured several fetid stools. At mid-day, Mr. Pretty was summoned to the little patient, who had still pains in the head and stomach, suffused face—tunica conjunctiva injected—insides of the hands of a dark red colour, breathing frequent, with a troublesome cough, and increase of fever. Bled to six ounces. Some nitre and antimonial powder. At this time petechiæ, of the size of pin's heads were observed about the arms, breast, abdomen, and right leg. Upon the other leg was a large blue spot under the cuticle, of the size of a sixpence. Some sanguineous discharge from the labia pudendi. 4. Had a restless night, the fever having increased; function of the lungs much impeded, threatening suffocation—great determination to the head—pulse very rapid and hard, petechiæ increased—the purple spot on the leg enlarged. Mr. Bagster (Mr. Pretty's partner) saw the patient to-day, and they agreed on another bleeding as the most likely means of preserving the head and lungs from serious injury. Ten or twelve ounces were taken from the arm, which produced syncope, and an apparent melioration of all

---

* Edinburgh Journal, April 1823.

† Mr. Pretty—Med. and Phys. Journal, No. 290.

the symptoms. In a few hours afterward, however, the fever again got up, and Dr. James Johnson saw the patient. He recommended the exhibition of the mineral acids. In the evening she appeared sinking, and expired at eight o'clock the next morning. The blood first drawn exhibited no serum for a space of eight hours; but after 20 hours a small quantity of serum was apparent. One cup of the second bleeding showed a coat of coagulable lymph nearly half an inch thick, like very soft jelly, with very loose crassamentum, so tender as to be easily broken down with a spoon into a soft pulpy mass. In this cup there was little or no serum. The other portions of blood, which were not taken, however, in a continuous stream, showed no buffy coat, and very little serum, seemingly as if the blood had become so altered as to be incapable of separating into its constituent parts.

Post-mortem Examination. The eyelids, in addition to the parts above mentioned, thickly studded with petechiæ, and many of a large size, appeared upon the back of the trunk. The brain showed merely some increase of vascularity. In the thorax there were adhesions in the left side, but not of recent formation. The lungs seemed loaded with blood and mucus, but their parenchymatous structure appeared sound. About half an ounce of water in the pericardium—the external surface of the heart of a pale hue, and about twenty small petechiæ on various parts of it, more particularly at the junction of the auricles and ventricles. In the abdomen, all appeared, at first, natural, excepting the stomach, which was distended with air, and thickly spotted with petechiæ, plainly seen through its peritoneal coat. On opening this viscus the petechiæ were still more distinct, about the size of split peas generally. No petechiæ were visible in or on the intestines. Dr. Gregory and Mr. Bagster were present at the examination.

Dissections of petechiæ hæmorrhagicæ are not very numerous, and the above case is very interesting as showing decidedly that the petechiæ are not confined to the skin, but liable to take place in the most vital organs, as the heart and stomach. The treatment of this curious disease is still involved in considerable obscurity, and is far from being settled. The blood of this little patient had a most remarkable and indescribable appearance.

17. *Tumour in the Neck* * All operations about the neck are accompanied with more or less danger, and are therefore deserving of record. In the present instance, a boy of six years of age was admitted into the hospital, having a tumour occupying the whole of

* Case of a large glandular tumour in the neck removed by J. P. Vincent, Esq. Surgeon to Bartholomew's Hospital.—Med. Chir. Trans. vol. xii.

the right side of the neck, extending from the ear to the clavicle, and laterally from the edge of the trapezius to the trachea, projecting in a proportionate degree beyond the natural contour of the neck. It had a lobulated feel, the integuments being free, and the mass appearing, at first view, moveable, but on being firmly grasped, it was evidently fixed at its basis. It was not painful, and the boy was in good health. The tumour was removed on the 10th of November, and the steps of the operation we shall give in the words of the author.

"Two semilunar incisions were made from the ear to the clavicle, including a portion of skin between them. The integuments and the mastoid muscle, which extended over the anterior portion, were dissected off. The tumour, which was divided into many portions, was drawn out, and a large mass was removed without much difficulty, by cutting through the firm membranous septa, which were interposed between the lobes. There still, however, remained a considerable portion in connexion with the large blood-vessels, extending from behind the clavicle to the mastoid process. The whole of this was removed, care being taken to draw out each portion from its situation, and to divide the septa with the edge of the knife turned towards the tumour. One portion of the tumour passed behind the internal jugular vein, and another was in contact with the pleura. During the operation there was very little hæmorrhage, and it was only necessary to tie one small artery. The situation and magnitude of the tumour rendered it impossible to avoid wounding nerves of importance. The nervous accessorius, and some branches of the cervical plexus were divided." 248.

For some time the wound did not go on well. Erysipelas supervened on the third day, extending over the face. On the 10th there was difficulty of breathing, with a very disordered state of the bowels, which yielded to purging and blisters. The wound healed, and the child was discharged from the hospital in about five weeks after the operation, there being still some difficulty of breathing, cough, and night perspirations. He soon after fell a victim to measles.

---

18. *Acetate of Morphia.** "Having lately seen much benefit derived in substituting the acetate of morphia for the tinctura opii of the London Pharmacopœia, and as I think it would prove of considerable utility, if generally adopted, I am induced to state the following mode of preparation, which, from several experiments I have lately made, I find to be the most economical, and to answer sufficiently every purpose of a more expensive process.

"Five ounces of good dry opium, broken small, are to be put into a covered vessel with from one quart to three pints of water,

* Fred. Joyce.—Med. Repos. No. 113.

and gently boiled until the whole of the soluble matter appears to be taken up. Pass it while still hot through a fine strainer, and, having poured a small quantity of boiling water on the residue, and having strained and mixed the liquors, add so much calcined magnesia that, when boiled for a few minutes, the supernatant liquor shall have entirely lost its bitter taste; the whole is then to be poured on a filter, and the magnesia precipitate collected and dried, which having been put into a retort, pour upon it one quart of alcohol, and apply a gentle heat to bring it to ebullition, at which state it may be of advantage to keep it for a few minutes, in order to entirely dissolve every portion of the morphia. The solution is now to be passed, as quickly as possible, through a filter, the residue is to be washed with a little hot alcohol, and the filtered liquors are to be mixed; return them into a clean retort, and draw off about one half the spirit. The contents of the retort are now suffered to cool, when the greater part of the morphia (perfctly pure, with the exception of colouring matter) will be found crystalized on the bottom or sides of the glass. Acetic acid, to saturation, being now added, the process is to be finished with a sufficient quantity of distilled water to make exactly one quart.

"It will be seen by turning to the Pharmacopœia, that, in this formula, the quantity of opium is doubled. It is, however, of no consequence, as the medical practitioner can, at any time, add either distilled water or proof spirit, and by that means bring it to the strength ordered by the college. In either of these states it will be found to possess every advantage that is derived from opium, without producing the disagreeable headach generally attending the use of the common laudanum.

"As this method may be objected to as not making a perfectly pure acetate, the colouring matter may be removed by recrystallizing the morphia previous to its solution in acetic acid, or afterward by the use of well-burnt animal charcoal, previously digested in muriatic acid: but as the loss in strength by either of these methods is often considerable, and colour in medicine being of very little moment, this additional purification would, in general, be found an evil. It is also, perhaps, necessary to observe, that whenever a solution of morphia in alcohol is to be filtered, it should be kept warm; otherwise the salt deposits on the filter, and the product is lost. The method I find to answer best, is to have a double copper funnel connected at the pipe, and the space between the two filled with boiling water. In this manner the whole of the fluid in the inner funnel is kept hot until it has passed through the filter; it is also furnished with a cover, which fits air-tight, in the middle of which is inserted a long-necked funnel, which reaches nearly to the bottom of the filter, and by which means it is refilled without removing the cover. This little apparatus is extremely useful for solutions in ether, the outer space being in this case filled with a freezing mixture."

19. *Tumour in the Vena Cava.** S. C. a native of the West Indies, aged 26 years, was admitted into the Pennsylvania Hospital on the 13th August, 1819, with a scirrhous testicle combined with hydrocele, for which he underwent operations. An enlargement then took place in the direction of the spermatic chord, and next the abdomen swelled and reached a great size, with lancinating pains, and constipation, from pressure on the intestinal tube. A mercurial course gave remarkable but only temporary relief. On the 7th of April, 1820, he died, "having all the appearances of internal scirrhus."

"On opening the body, an enormous tumour was found adhering to the peritoneum on the right side, and enveloping to at least one half their width, and with the firmest adhesions, the cœcum and parts of the colon and ileum, on the same side. A process of the same mass extended into the pelvis, included the rectum in the same manner, and adhered intimately to the urinary bladder. Another lobe of the tumour lay higher and deeper, and included the right kidney so completely that it could not, at first, be seen. A large fleshy process extended upwards, separated the duodenum several inches from the spine, adhered to the vena cava, embraced the whole circumference of the aorta, and finally became continuous with the diseased substance which formed nearly the whole of what appeared to be the liver. At the posterior part of the tumour was found the enlarged spermatic chord, extending to the place at which it had been tied, during life, and forming a blunt projection there, which had been felt externally. Its composition was similar to that of the rest of the tumour. The whole presented the mixture of cartilaginous bands with cells of softer matter, which occurs in scirrhus; occasionally with coagula of blood, and in the liver, with several small abscesses. The right kidney was very much enlarged from distention of the pelvis and infundibula which were filled with urine. The internal and tubular portion of this viscus was nearly removed. The ureter was of the usual size, but the passage of fluids through it was rendered difficult by sudden and acute turns. The other kidney was healthy. Much bloody fluid was found in the abdomen and the left side of the thorax. There is no memorandum of the right side." 336.

The vena cava inferior was distended to an enormous size, by a kind of polypous tumour, four and a half inches in length, and nine-tenths of an inch in thickness, tapering gradually to both ends; but adherent in some places to the parietes of the vessel.

We consider the phenomenon which has given title to this paper in our respected cotemporary of the West, as quite a subordinate one in the series of morbid structures, and very doubtful as to its ante-mortem or post-mortem formation.

---

* Cr. Coates.—Dr. Chapman's Philadelphia Journal, No. 8.

20. *Bilious Remittent Fever.** We have always endeavoured to impress it on the minds of our junior brethren, that fevers are greatly modified by the local nature of the remote causes, the climate, and the constitutions of those attacked. Some writers would persuade us to a very simple pathology and a very uniform mode of treatment in fevers of all kinds; as if their seat was always in a particular structure of the body, and the nature of the lesion constantly the same. And even where the post mortem appearances are nearly the same, the fevers, of which these are merely effects or consequences, are often very dissimilar, and require different modes of treatment.

Mr. Goodisson, the author of the interesting little work before us, has been serving for seven years past in the Ionian Isles, and has given the British public an entertaining account of many places famed in Grecian song and history, and now enjoying peace and prosperity under the English flag. He has added an appendix on the bilious remittent fever of the country, of which we shall take some notice in this place. In his remarks, he begs to be understood "as not attempting to decry the use of blood-letting in fever in general, a remedy which, for six months of the year, he always found to be the sheet-anchor in the treatment of the Mediterranean fevers, and the utility of which the late Dr. Irvine (and he might have added the present Dr Burnett) fully developed."

The autumnal fever of Santa Maura differs from the bilious remittents that our author has seen in other parts of the Mediterranean, only in degree, and chiefly in the great debility which succeeds to the stage of excitement.

"There seems to be something in the remote cause, exclusive of the violent reaction of the system, calculated to produce this alarming state, which no tonics or stimulants can support or overcome; for, it occasionally takes place where but little febrile action has preceded it. In individuals where this direct impression has been made, and its effects are afterward to be evolved, bleeding is a highly dangerous operation, and is generally to be avoided: the remedy is extremely unpopular, and particularly so when the season is advanced; the middle of July may be looked upon as the period at which this revolution takes place. The fever when attended with this debility, has been miscalled typhus†; by the medical people of the country it is often called, amphimerina paludosa; but more commonly, terzana; sometimes, hemitriteo, according as they fancy that they have noted the duration and return of paroxysms or exacerbations. The medical practitioners here use emetics at first, and a

* Mr. Goodisson's Historical and Topographical Essay on the Ionian Islands, 8vo. 1822.—Underwood.

† "I never knew an instance of its being communicated by contagion. In most of the hospitals on this station, the cases of fever are necessarily mixed with other diseases, from the great proportion of the former and the want of room; I never saw a case of remittent fever caught from another in hospital."

preparation of antimony, kermes' mineral; they use the bark in large quantities. The fever, as it attacks the British in the island, is ushered in by slight shiverings, or rather fits of chilliness, alternating with transient flushes of heat; the more ardent the fever the less observable however are the chills; the headach and heat of skin then come on at once; the former is sometimes so violent as to affect the sight: I have seen it produce hemeralopia, in two instances. The affection of vision is sympathetic, and its cause, as well as that of the headach, mostly referable to foulness of stomach A smart emetic is here the most useful remedy, although during its operation the pain of head be sometimes aggravated by it; when, a blister applied to the nape of the neck will remove the pain altogether in many cases: a powder of twenty grains of ipecacuanha and one grain of tartar emetic, repeated in a quarter of an hour, if the first powder fail, generally succeeds in evacuating a quantity of green bile, which will also pass off sometimes by stool. This usually relieves the head after one or two hours, and procures comfortable sleep, particularly when given in the evening*. The same effect however often follows, although not a particle of bile be dislodged, simply from the shock of the emetic upon the system†. The emetic should be followed up by a purgative, when necessary, the bolus of calomel and jalap, succeeded by a dose of neutral salts, is perhaps the best. A combination of calomel and antimonial powder, varying the quantity of each according to the state of the stomach, bowels, and skin, will be found to be a most useful auxiliary to bring about a remission, which succeeds the more speedily by adopting these means, when the bark should be given without delay. The periods of exacerbation and remission should be noted in each case, and the bark administered and continued, as near to the febrile accession or exacerbation as the stomach will allow. When the periodical returns or augmentations of fever are regular, half an ounce of bark, given within an hour before the time of the attack, often interrupts the disposition to its formation and protracts the fit, sometimes even prevents it altogether. The most remarkable critical days are the third and the seventh. The fever often shows a tendency to observe the periodical revolutions of a tertian: this was remarkably the case in the summer of 1818. The exacerbations mostly occur at or about noon, and the remissions always take place towards morning. A very deep yellowness of the skin often succeeds, coming on usually about the fourth day: Of eighty cases of remittent fever occurring in the garrison of Santa Maura in the summer of

---

* "Travellers in Greece should always provide themselves with a number of emetic powders as well as bark and purgative medicines; by the former, they may often cut short a fever in a few hours; by the latter, they can remove one of its exciting causes, and with bark they may support their constitution under its formation."

† "The great danger dreaded from emetics is the effect of determination to the head: I have given at least two hundred emetics in the severest head-achs in fever, and never witnessed that effect."

1817, this symptom appeared, most strongly marked, in twelve instances. The remote cause of the fever lies in the atmosphere; the noxious exhaltaions having abundant sources at the margin of the lake, and the skirts of the olive wood which touch the town." 232.

The post mortem appearances were a redundancy of bile distending the gall-bladder, and extravasated into the duodenum, together with turgescence of the liver. Another remarkable phenomenon "is a contraction of the colon: in nearly one hundred cases of dissection, most of which I performed myself, and have been present at the remainder, I have witnessed this diseased structure in the greater number." Whether this alteration arises from the astringent quality of the wines, or from habitual and long-continued costiveness unattended to by the careless soldier is, uncertain. How far the natives are subject to this, it is difficult to say, as the *sectio cadaveris* is seldom or never performed by them.

During the prevalence of the remittent fever and the operation of the marsh effluvium, all the other diseases are modified thereby. Thus wounds and contusions, at these periods, are often attended with erysipelatous inflammation—ophthalmiæ are exceedingly troublesome, and often require bark for the cure. Pneumonia, although prevalent to a great extent, and very unscientifically treated by the native practitioners, does not often terminate in phthisis, "a disease which is comparatively rare here." Our author avers that he has seen cases of phthisis recover here, which in other places would have been lost.

---

21. *Case of successful Bronchotomy, for the removal of a Pebble from the Trachea. By Dr. William Hunt of Dartmouth.** The patient was a boy four years of age, who, having several pebbles in his mouth, drew one of them into the rima glottidis, where it stuck fast, nearly occasioning suffocation. A lady who was present, in the attempt to remove the stone, pushed it down the trachea, and thus gave the boy the means of breathing freely. In this situation Dr. Hunt found him. He was tranquil till ordered to cough, when the pebble came up to the larynx, and occasioned convulsions with sense of suffocation, and wheezing and rattling in the throat. The stone being small, it fell back into the trachea whenever the coughing ceased. On the succeeding day an operation was agreed upon.

"The child being laid on a table with his head hanging over it, and being firmly held by the assistants, I made an incision through the integuments, two inches and a half long, near the prominence of the thyroid cartilage. On dissecting down to the trachea, a considerable vessel was opened, which required the application of a ligature.

"An incision, very little more than half an inch long, was made in the trachea, beginning from the first ring under the cricoid carti-

* Med. Chir. Trans. vol. xii.

lage, when I most fortunately felt the pebble with the point of the knife, having fixed it with the fore finger of my left hand to prevent its being drawn out of reach by an inspiration. Mr. Budland, one of the attending surgeons, with a pair of forceps easily extracted it; it was of the shape of a kidney-bean, half an inch long, ⅓ of an inch wide, and a quarter of an inch thick." 29.

Violent pulmonic and tracheal inflammation ensued, but it was met by decisive measures, and the child recovered, much to the credit of Dr. Hunt and the other medical officers concerned.

Mr. Earle has appended some judicious observations on the foregoing and analogous cases, to which we would direct the attention of the surgical reader.

As the chymical details do not appear very interesting to us, or likely to bear on any practical or useful subject, we must be excused from entering upon them in this Journal.

---

22. *Small Pox and Chicken Pox.** In respect to the pathology of small-pox, the few examinations which Mr Jackson has made, showed that the head bore the greatest marks of disease. He thinks that this might be expected from the symptoms. At an early period of the complaint there is agonizing headach, intolerance of light, and a sudden starting from sleep—in the latter stages there is a gradual approach to stupor.

In October and November, 1819, our author had several opportunities of inspecting the bodies after death, and, in every instance, found effusion into the ventricles of the brain—the cerebral membranes thickened and highly vascular. The subjects were under six years of age, and the small pox was of the confluent kind.

The principal object, however, of Mr. Jackson's paper is to offer further experience "tending to disprove the identity of chicken pox and modified small pox." In December 1821, Mr. Jackson's attention was directed to an eruptive disease, corresponding with what he had been in the habit of designating as chicken pox. From the most attentive investigation, it appeared evident that this eruptive disease originated in Albion-row about the middle of November—"that it there affected, indiscriminately, the vaccinated, those that had had small pox, and others unprotected—and what is very remarkable, in all those subjects the constitutional and cuticular affections were similar in degree, duration, and appearance."

"The following is the general description of the disease: considerable febrile excitement of one, but generally two days' duration, after which there was a sudden appearance of papulæ, which almost immediately became vesicular. The vesicles appeared solitary and in clusters, and were surrounded by an erythematous efflorescence

* Mr. Jackson, Med Repos. No. 113.

irregularly diffused; and they arose successively during the continuance of three, four, or five days. This disease corresponded with the third species of varicella described by Willan. The vesicles were large, and their base not exactly circular; and some of them, in the progress of the disease, became pustular, or, at least, changed their colour to a light yellow; others shrivelled after the evacuation of their contents. The fourth and fifth days from its appearance, the eruption began to decline; or rather, those vesicles that had first come out then commenced shrivelling; so that in their progress towards the height, as well as on their subsidence, various states of advancement were visible."

There were no cases of small-pox in the neighbourhood at the time. The disease ranged over an extent of about one mile, and not fewer than two hundred children were affected by it, of which about 50 were seen by our author.

"It may be contended by the advocates for the identity of chicken-pox and small-pox, that the disease I have described was vesicular small-pox—indeed, this is an inevitable conclusion at which they must arrive; but in what plausible way would they account for the uniform aberration, in this instance, from the usual course of disease, since in many cases (perhaps one-third of the number) there appears to have been no assignable modifying influence? Here we observe all indiscriminately affected in the same way; an eruption is displayed, differing much more widely from the character of genuine variola than this latter does from what is very properly termed modified small-pox. When small-pox appears in a vaccinated individual, its character is confessedly changed, and, unlike the disease above detailed, it seems to be as efficient as the unmodified disease in originating the true small-pox in the unprotected, or in giving rise to a disease similar to itself in the vaccinated, either by contagion or inoculation.

"Having repeatedly attempted to communicate the genuine varicella, by inoculation, to those who were unprotected by vaccination or small-pox, and having as often failed, I cannot but regard the circumstance as strongly corroborating the opinion of a specific difference in the two diseases. If small-pox, under all its usual modifications, be communicable by inocculation, and varicella not so, although the fact (if esteemed such) constitutes but an indirect proof of their non-identity, it goes far enough, I think, to induce us to infer an inherent difference in their nature."

---

23. *Rheumatic Metastasis.** We have long been convinced, from attentive observation, that the system of detracting large quantities of blood in cases of acute rheumatism, is productive of more fre-

* Mr. Armstrong, Med. and Phys. Journal, No. 289.]

quent metastasis from the extremities to internal organs than a more moderate mode of treatment. In the first place, acute rheumatism is not to be controlled by large and decisive bleedings like common inflammations in other strictures, as the lungs, &c. And in the second place, if we do quell the external inflammation suddenly by copious depletion, a retrocession to some weakened organ is but too apt to take place. Of this we have seen several instances. In the following case, however, the disease was extended rather than translated to the heart, as the latter organ became affected before the rheumatism left the joints. Indeed it appears that the disease kept possession of the original seat till the last.

On the 7th November, a private soldier, young, slender form, and delicate complexion, was admitted into the regimental hospital of the foot-guards, labouring under acute rheumatism of the superior extremities, characterized by the usual symptoms, as violent pyrexia, full hard pulse, great thirst, furred tongue, and constipated bowels. Twenty-four ounces of blood from the arm in a full stream—a brisk cathartic—fever diet. 8th. No alleviation of symptoms. Again bled to twenty-four ounces, and a quarter of a grain of tartarized antimony to be taken every three hours. 9th. Symptoms a little milder, but still urgent. The antimonial continued, and 12 grains of Dover's powder to be taken at bed time. 10th. Cough—the pain in the joints, and the fever being still undiminished. A brisk cathartic of calomel and colocynth. 11th. To the cough was added pain in the region of the heart. He was again bled, and the tartarized antimony continued. 12th. The heart and arteries evinced great action, and 40 ounces of blood were abstracted, without producing syncope or making much impression on the pulse. Antimonials continued. 13. Cough and pain in the region of the heart increased. Digitalis added to the antimony. On the evening of this day, for the first time, thirty-six leeches were applied to the region of the heart, and the digitalis increased. 14th. he died. On dissection the heart was found enlarged in size, and the surface every where covered with coagulable lymph.

We would hazard a remark or two on the abve case. We think local bleeding was not employed early enough when the thoracic inflammation became developed, and we do not observe that blisters were employed at all. In the second place we conceive, (from witnessing such things on similar occasions) that there was time to introduce mercury sufficiently into the system, after the sanguineous depletion, so as to have arrested the inflammation not only of the joints but of the heart.

---

24. *Cubebs in Gonorrhœa.** The power of this medicine over gonorrhœal inflammation and secretion is not yet sufficiently ascertained. Being a new remedy it is overrated by some, and under-

* S. D. Broughton, Esq. Med. Chir. Trans. vol. xii. part 1.

rated by others—it is therefore necessary to hear the experience of the neutral class. Mr. Broughton, who is a gentleman of zeal and discrimination, confines himself in this paper to a summary account of the results of fifty cases of gonorrhœa, in which the cubebs was employed. The preparations used were the powder, and the wine or tincture—the former in the doses of from half a drachm to two drachms—the latter from a drachm to half an ounce, twice or thrice a day.

"The following statement will exhibit a concise and general view of the results :—

"Patients cured in from two to seven days . . .	10
- - - - - - - - eight to fourteen	17
- - - - - - - fifteen to twenty-one . . .	18
- - - - - - - twenty-two to thirty . . .	1
- - - - - - - in fifty-five days	1
Patients in whom no sensible effects were produced .	3
Total . .	50."

In five of the above cases, though relief was immediate and decided from the cubebs, the final cure was completed by the copaiba in four, and an astringent injection in the fifth. In one case, the complaint having been arrested by cubebs, returned, and was eventually removed by the balsam. In two cases, solely cured by the cubebs, there were swelled testicles, and in one severe chordee.

"Among *fifty* cases treated with cubebs, there were therefore, *three* total failures, *five* relieved, and *one* suffered a relapse; leaving *forty-one* cases cured under the use of the pepper, in less time than a month, with *one* exception; the largest proportion in less than three weeks, and several in a few days, among which latter some were well in eight-and-forty or thirty-six hours; and, the failures excepted, the relief in all cases, where the symptoms were urgent, was very sudden; and only two instances of swelling of the testicles occurred, and one of chordees continuing after the exhibition of the pepper, although in other respects the clap was relieved directly.

"The account may therefore stand thus :

Cured	41
Relieved	5
Cured and relapsed	1
Failed	3
Total . .	50.'

Mr. Broughton is disposed to view the cubebs as, in some points superior to all other remedies in gonorrhœa. 1st. It seems to allay irritation, and lessen the discharge better than alkalies, or the nitre and gum powders. Over bals. copaiba it holds the advantage of being admissible in the earliest and worst stages of the disease,

without any inconvenience to the patient. It has not, in his experience, disordered the patient's stomach. Its superiority over injections consists in not being attended with any of the bad consequences of injections.

"As to the time which is usually consumed in removing a clap with cubebs, I think it might challenge most remedies in this respect, and is not more fickle in its operation. And, at the same time, we must take into consideration its negative qualities, which, rendering it a perfectly safe remedy, would naturally induce an inclination to sacrifice a little time, were it necessary, for the sake of avoiding the chances of a ruder, though a quicker plan of cure." 103.

Our author agrees with others, that when cubebs does not seem to act in three or four days, it should be superseded by some other remedy; or, having once relieved the urgent symptoms and its beneficial influence appearing to decline, the balsam of copaiba should be forthwith employed.

The above appears to us to be a temperate and impartial estimate of the remedy in question.

---

25. *The Knife-Eater.** Dr. Curry's history of the nautical knife-eater is as well known as Mr. Canning's story of the political knife-grinder. It was bandied about in the periodicals of the day, and has even made the "grand tour" in the Dictionnaire des Sciences Medicales.

Little imagined the honest tar, while bolting clasp-knives and swigging grog in the Bay of Biscay, that *his transactions* should descend to posterity, in company with those of the learned societies of the nineteenth century. Little did he suppose that every fragment of steel and horn which bore the marks of his gastric juice, or exhaled the odour of his appendix cæci, should be as carefully collected, preserved and engraved, as if they had been dug out of Herculaneum, the pyramids, or the old Danish Galley in the Rother!

The subject of this paper was an American sailor, who, in the year 1799, with more valour than wisdom, swallowed a clasp-knife, in imitation of a pretended exploit of the same kind performed by a French mountebank. Having found that it slipped down his throat pretty easily, especially when lubricated by some strong grog, he repeated the experiment with three other knives. In the course of the succeeding day he passed, *per anum*, three of the knives—the fourth was never evacuated to his knowledge. During the six ensuing years he swallowed no more knives; but in 1805, in consequence of a drunken bout, he swallowed fourteen knives in two days. He now paid dearly for his frolic, by pain and sickness. In Charlestown Hospital, however, he was safely delivered of his car-

* Dr. Marcet.—Med.-Chir. Trans. vol. xii. part 1.

go of cutlery. The next scene of operations was on board the Isis, an English 50 gun ship, at Spithead. Here he swallowed fourteen knives in the course of two days, washing them down with liberal potations of grog; and, according to the testimony of the spectators, he swallowed four more after he was fairly "sewed up," and consequently incapable of remembering the transaction! This made a sum total of at least 35 knives. He was taken ill the day after his last exploit, and came under the care of our able friend Dr. Lara, who was then surgeon of the Isis. Dr. Lara did the best he could for him; but it was three months before he passed any of the knives. Between this period and February 1807, he passed several fragments of knives, upwards and downwards, and in June of the same year he entered Guy's Hospital, under the care of Drs. Babington and Curry. He was once or twice discharged, but finally re-admitted in September 1808, and dragged out a miserable existence till March 1809, when he died in a state of extreme emaciation. With the view of dissolving the foreign bodies, or at least of blunting their asperities, Drs. Babington and Curry administered diluted mineral acids, combined with opium and mucilage. Various other palliatives were employed, with temporary benefit, but no final success.

On opening the body a black feruginous tinge pervaded most of the abdominal organs. Some fragments were found impacted in the intestines, so as to render their exits impossible. Though some portions of knives had penetrated the coats of the colon, no fæces had escaped. On opening the stomach a great many fragments of blades, springs, and handles were found in it—some of them remarkably corroded, and greatly reduced in size—others in a state of comparative preservation.

"'The œsophagus at its lower part, and the upper orifice of the stomach, were thicker than natural. The left extremity of the stomach, where the spleen adheres to it, had its usual texture: but the right was exceedingly thickened. The rugæ, in the mucous membrane, were unusually prominent; and there were granulated projections from the edges of the rugæ. This membrane was still slightly coloured by the steel. The pylorous was natural, but the duodenum had a greater thickness than usual.'" 61.

Dr. Marcet having been present at the dissection, was enabled to notice a curious chymical fact, showing the power which iron possesses of impregnating the biliary secretion.

"Observing that the contents of the gall-bladder partook of the black tinge of the other abdominal viscera, I collected some of the bile, for the purpose of ascertaining whether, and in what proportion it might contain iron. About 150 grs. of this bile (which was perfectly black, and possessed the usual alkaline properties) being subjected to evaporation, and the dry mass burnt in a platina crucible, with a little wax, the incinerated residue weighed nearly five grains, and on presenting a magnet, ferruginous particles were immediately attracted by it. This residue being treated with muriatic acid and

prussiate of potash, the quantity of prussian blue formed amounted, (after being well dried) to 0. 5. grs. The presence of a notable quantity of iron in this bile, was therefore clearly shown by this analysis; and that this quantity was much more considerable than it is under ordinary circumstances, was ascertained by a comparative experiment upon healthy human bile (obtained from a body in which that secretion had suffered no morbid change before death,) 150 grs. of which, treated in a similar manner, yielded at most 0. 2 grs. of prussiate of iron. This susceptibility of the bile, of receiving a ferruginous impregnation, from the presence of iron in the stomach, appears to me the more remarkable, as I tried in vain, a few years ago, to detect iron in the urine of persons whose digesting system was under the influence of that metal." 63.

We remember that Dr. Marcet, on the night this paper was read at the Medico-Chirurgical Society, pointed out the specimens of corroded materials as proofs of the astonishing solvent power of the gastric juice. But it was well observed, (we think, by Dr. Birkbeck,) that, considering the dyspepsy and other gastric derangements under which the patient had so long laboured, we had reason to suppose that the acetous *acid* of the stomach might contribute materially to the corrosion of the knives. This suggestion was so reasonable that Dr. Marcet did not reply to it.

The history of the case, the morbid stomach, and the *débris* of the extraneous bodies, are very well deserving of a place in the museum of the anatomist, or such a department of a work as that denominated "cas rares" in the great Dictionnaire des Sciences Medicales; but we greatly question the propriety of their introduction (after being so often published before) in the practical transactions of a medical society.

---

26. *Abdominal Tumour.** Tumours in the abdomen often puzzle the most able anatomists—the most experienced pathologists. The more facts and post-mortem examinations we can collect, the more capable shall we be of giving a probable prognosis in such cases.

A man, 31 years of age, was admitted into the St. Giles's Infirmary, in October 1822, having a tumour of considerable magnitude in the right side of the abdomen, attended with pain and vomiting, extreme emaciation, and hectic symptoms. He had been only five months ill, his first complaints being pain above the navel, with vomiting of dark-coloured substances, and black alvine discharges. In a month he discovered a small tumour in the right side of the abdomen, which gradually increased, together with the other symptoms. After his admission, the size of the tumour progressively advanced, and eventually occupied nearly the whole of the umbilical, iliac, and hypogastric regions. It was extremely hard, and somewhat irre-

* Mr. Ward.—Med. Repos. No. 112.

gular, but unattended with pain on pressure. His strength and flesh declined, and about three weeks before dissolution he was harassed with a distressing diarrhœa.

"*Dissection.* The peritoneum lining the abdominal muscles was found remarkably thickened (the thickening varying from one and a half to two inches) by a substance somewhat resembling fat, but much more firm. On exposing the intestines, an appearance presented itself which at first seemed difficult to unravel: on more minute examination, however, it was evident that the tomour was formed by the same thickening or organized deposition already described, and which extended more or less over the *whole suface* of the peritoneum. The parts more immediately forming the tumour were the lower portion of the ileum and ascending colon, which, having become agglutinated by coagulated lymph, formed an immense and compact mass. On the anterior part of this tumour was an opening formed by ulceration, through which a large quantity of matter had escaped into the the cavity of the abdomen, which, in all probability, was the immediate cause of death. On following the course of the outer opening, a cavity was laid open, occupying its central part, and extending about eight inches from side to side, through which all excremental matter must have passed for some time previous to death, the structure of the intestines being at this part totally destroyed by ulceration; consequently, there were four openings communicating with the cavity formed by the ascending colon on one side, and the inferior part of the ileum on the other. The intestines through the greater part of their course were considerably constricted. The ureter and pelvis of the right kidney were greatly distended with urine. The lungs were free from tubercles, and appeared perfectly healthy. The remaining viscera were natural."

The above case, in its early stage, was mistaken for aneurism—a mistake which we have often seen committed.

---

27. *Arsenic.** A woman was supposed to have swallowed half an ounce of arsenic while in a state of pregnancy. Great sickness took place. Mr. Edwards was sent for, but how long after the acccident is not stated. He found the patient much exhausted by violent retching and vomiting, complaining of cold extremities, unquenchable thirst, spasmodic pains in the bowels, parched mouth, bloated eyes, swollen face, great anxiety. The pulse was 120. Mr. Edwards lost no time in administering the carbonate of magnesia, "as an antidote to the poison," and followed the plan recommended by Mr. Hume of Long Acre. The prescription was an ounce of car-

* Mr Edwards.—Med. and Phys. Journal, p. 288.

bonate of magnesia, half a drachm of vinum opii, half an ounce of sugar, and a pint of distilled water, of which a wine-glassfull was ordered every fifteen minutes, accompanied by a free use of mucilaginous drinks. A few hours afterwards, the symptoms being rather exasperated, twenty ounces of blood were taken from the arm, and the mixture was repeated. In the evening, the patient being rather better, a dose of caster oil was exhibited, and a dozen of leeches applied to the right side, where she complained of pain. She recovered, but very slowly, and not without experiencing for some months many distressing symptoms, as indistinct vision, gastric irritability, numbness in the lower extremities, great weakness, &c.

We are of opinion that Mr. Edwards had only to combat the *consequences* of arsenic *having been* in the stomach, and that therefore the magnesia mixture, as an antidote to poison actually present, was rather nugatory.

---

28. *Mercury in Acute Diseases.* It has been very erroneously considered that the free exhibition of mercury in fevers, dysenteries, and acute inflammations, is a new and dangerous practice, principally derived from the medical men of hot climates. In the 7th volume of the "MEDICAL FACTS and OBSERVATIONS," there is a communication from Dr. Wright, dated 1794, showing that the practice had been common with him and others ever since the year 1760—that is, 69 years ago. He shows that Dr. Smith, a physician at Savannha le Mar, was in the habit of giving calomel *in scruple doses* in acute diseases with great success. In respect to dysenteries, Dr. Wright's words are these.

"In dysenteries where the fever has been considerable, the tongue dry and parched, the gripes severe, and the stools very frequent, with scarcely any thing else than blood and mucus, I have prescribed, with good effect, calomel in doses of five grains every six hours, till a copious stool or two have been procured; and afterwards in smaller doses, with occasional opiates, while the fever and gripes have continued."

Extended experience in various climates has confirmed the practice of Dr. Wright, while a correct pathology of the disease has shown the propriety of local and general bleeding, to secure the mucous membrane of the intestines from the disorganizing effects of inflammation.

---

29. *Cancer* (*Retrospective.**) Dr. Akenside did not confine his attention entirely to "the pleasures of imagination," though he was far more distinguished by his poetry than his physic. When phy-

* Dr. Akenside, Physician to St. Thomas's Hospital, 1760.—Transactions of the College, vol. 1.

sician to St. Thomas's Hospital, he made some observations on scirrhus and cancer, in which he experimented on the oxymurias hydrargyri, and also on the cicuta, which was then coming into vogue for the cure of strumous affections. We shall only glance at one or two cases. The first was a woman, 50 years of age, who came under our authors's care in St. Thomas's Hospital, for a scirrhous swelling on the right side of her neck, which impeded deglutition, and caused great pain in her throat and mouth. The external surface of the tumour was also very painful, and from it stinging or lancinating pains radiated over the temple, and in diffrent directions. Dr. Akenside gave her twice a day a quarter of a grain of the oxymuriate in a spoonful of proof spirit, keeping the bowels open with some aperient waters. Under this regimen she found daily benefit. The pains gradually vanished—the scirrhous tumour diminished—the deglutition became easy—and the mouth free from soreness. On laying aside her medicines the disorder returned, and she was re-admitted as bad as ever. A repetition of the same treatment restored her once more, and she was discharged cured.

Another case of scirrhous and cancerous tongue cured by the same remedy, is related.

We do not say that the above were cases of real scirrhus or cancer; but we have seen several cases where tumours of a very suspicious appearance were disperse d by quietude, open bowels, low diet, and small doses of the oxymurias hydrargyri.

---

30. *Products of Inflammation.** Animal chymistry, we fear, is but in its infancy yet; and therefore it is not very safe to draw general conclusions till farther advances are made in the science.

It is the object of the author of the paper before us to draw a distinction between what is termed "coagulable lymph," and what is denominated "fibrin"—or, at least, to prove that it is the *latter* substance in conjunction with serum, which is deposited during the process of adhesive inflammation. Albumen cannot, he observes, be made to assume the fibrous or filamentous texture, although it be rendered solid by heat, acids, alcohol, or the galvanic fluid. When coagulated into a mass, it is easily broken down between the fingers into a pulpy form—fibrin, on the contrary, will resist considerable pressure, being firm and elastic. "But the principal distinction between these animal products consists in the fibrin becoming solid spontaneously, when taken from the living vessels, whereas albumen has not this property."

"When adhesive inflammation is taking place, the fibrin of the blood, together with serum, seem to be secreted from the vessels; they are both thrown out in the fluid state; but the former has the

---

*T. Dowler, Esq.—Med.-Chir. Trans. vol. xii.

property of becoming solid soon after it is removed from the influence of those vessels; and in so doing it encloses between its fibres the serum, with which it had been secreted. This change begins to take place very soon after its escape from the circulating system, and does not appear to cease, till a considerable time after it has been removed from the body.

"If a blister be applied to the surface of the skin, so as to produce much inflammation, it will occasion a greater or less quantity of adhesive matter to be secreted under it; this will be generally found at the most depending part, clearly proving that it had been thrown out in the fluid form, and had arrived at this situation by its gravitation. Here it gradually assumes the solid state, and during this change it retains between its fibres, (which appear to be flattened and extended,) the serum, which is poured out at the same time; and it not unfrequently happens that the fibrin is so abundant, that the whole of the serum is enclosed in it, and that they form together one solid and opaque mass. If, however, the quantity of fibrin is but small, the solid mass so produced will be semi-transparent, and have a gelatinous appearance; hence it is usually denominated a 'gelly blister.'" 88.

If the solid compound, Mr. Dowler observes, just alluded to, be removed from the body, and pressed *strongly* in a fine linen cloth, the serum will be forced out, while the fibrous part remains:—this fibrin Mr. D. has chymically examined and compared with that of the blood, and he could not find the slightest difference between them. The solid substance thrown out by a blister, Mr. D. remarks, bears a great resemblance to the buffy coat of the blood—the nature of which seems not to have been well understood. Deyeux, Fourcroy, Thomson, all give different and unsatisfactory explanations of the phenomenon exhibited by the blood in inflammation. The following was one method which our author had recourse to for the purpose in question.

"Eight ounces of blood were taken from a man who was labouring under rheumatism, and received into two four-ounce vessels; the one being allowed to rest, in order that a buffy coat might form; while the blood in the other was kept in motion, to prevent its formation. After the lapse of twenty-four hours, the blood that had been kept agitated was washed, in order to separate the fibrin, which, when dried, weighed 12 grains.* The four ounces contained in the other vessel, being washed, and the fibrin collected and dried by the same means (having, however, the buff previously removed, afforded only six grains; consequently, it might reasonably be supposed that the six grains wanting were existing, in some form or other, in the buffy crust. This was found to be the case; for, when it was submitted to pressure, a large quantity of fluid escaped; the mass be-

* "The proportion of fibrin varies very considerably in the blood of different individuals, and in the same person at different times."

came evidently of a fibrous structure ; and, when dried, it weighed precisely six grains, making, together with the six which were obtained from the crassamentum of this blood, a number equivalent to that produced by the blood in the other vessel. The fluid thus pressed from the buff became solid by the application of heat, and consisted of common serum." 91.

From these and other experiments, our author is led to conclude that the inflammatory crust of blood is neither the altered fibrin of Deyeux, the coagulated albumen of Fourcroy, nor the coagulable lymph of Dr. Thompson—but that it is composed of "a tissue of fibrin containing between its fibres a very large proportion of fluid serum."

So far so good—but when Mr. Dowler goes on to an explanation of the *modus operandi* of Nature, in throwing out the different products of inflammation, as serum, albumen, fibrin, pus, blood, &c. we fear he "travels beyound the record," and that in a terra incognita, where we do not deem it prudent to follow him.

31. *Dislocations.** This work, as we expected, has had a most rapid sale, the second edition being already out of print. To this second edition, Sir Astley has given an Appendix, containing some additional matter which he considers to be worthy of publication. This plan deserves imitation by other authors, as it enables purchasers, at a trifling expense, to obtain possession of the labours of the writer, without the necessity of procuring a new edition ; while it affords an opportunity to the author to add to, or subtract from, his former observations, whatever he may have omitted on the one hand, or found reason to alter on the other.

The Appendix contains three cases of dislocation of the thigh. The first occurred in Guy's Hospital, and the particulars are ably detailed by Mr. Key, Assistant Surgeon of the Hospital. It was a dislocation in the foramen ovale, and it was reduced by the mode of extension, recommended in the treatise on dislocations, excepting that the dislocated limb was carried behind, instead of before, the other.

The second case happened in St. Thomas's Hospital, and was reduced by Mr. Tyrrell, Surgeon of the Hospital. The dislocation was of the os femoris upon the pubes.

The third case occurred in the practice of Mr. Maurice, Surgeon at Marlborough, and the bone was dislocated upon the dorsum ilii. It was reduced in ten minutes by the use of the pullies and by bleeding to thirty ounces from the arm.

The next subject in the Appendix is on *fracture of the neck of the thigh bone.* It has been most falsely stated that our author had said in his work, that the union of the fracture of the neck of the thigh bone was impossible. Whereas our readers will see in our review,

* Appendix to Sir Astley Cooper's Work on Dislocations.

(No. 11, page 633) that he has expressly observed that, although it is a general law, that fracture does not unite, yet he denies not its possibility. He says, page 127 of the first edition—"*To deny its possibility and to maintain that no exception to the general rule can take place would be presumptuous—especially when I consider the varieties of direction in which a fracture may occur, and the degree of violence by which it may be produced; as for example, where the fracture is through the head of the bone, and there is no separation of the fractured ends; or when the bone is broken without its periosteum, the reflected ligament which covers its neck being torn; or when it is broken obliquely, partly within and partly externally to the capsular ligament; but all I wish to be understood to say is, that if it ever does happen, it is an extremely rare occurrence, and that I have not yet met with a single example of it.*"

In the Appendix, our author observes, upon this subject, that he has stated it in his work to be *a general principle*, that the neck of the thigh bone, when broken within the capsular ligament, does not unite by bone, and he has taken the trouble to learn the number of specimens in different collections of ununited fractures of the cervix emoris, and the following is the result.

In the collection of St. Thomas's Hospital . .	7	Specimens.
In the College of Surgeons	1	Ditto.
In St. Bartholomew's	6	Ditto.
At Dublin	12	Ditto.
In Mr. Langstaffe's collection	6	Ditto.
In Messrs. Bell and Shaw's	6	Ditto.
In Mr. Brookes's Museum	2	Ditto.
In Dr. Munro's	2	Ditto.
In Mr. Mayo's collection	1	Ditto.
Total—	43	q

Thus, then, forty-three cases of non-union may be at any time witnessed or examined by all those who are anxious to learn the truth upon this subject; and, after this, surely no one in his senses would deny that non-union is the general result of these accidents. The main principle upon which this want of union depends, he has endeavoured to show, exists in the lessened nutrition of the head of the bone, from the ligamentum teres being the only source of supply of blood to the detached bone after the fracture—and therefore it scarcely undergoes any ossific change.

But the circumstance which strikes us as being most decisive upon this subject, is a preparation which our author states to be in the possession of Mr. Langstaffe, in which there is a fracture *within* and another *external* to the capsular ligament. Now we would ask what ought to be the result of such a case, if the principle advocated by our author be not well founded?—Certainly both fractures ought to be united, or both ununited. But what is the fact?—That fracture which is *external* to the capsular ligament "is firmly united;" while that which is situated *within* the ligament, "has undergone

no ossific change." These fractures must have been situated within three inches of each other, and the means which succeeded with the one should have been successful in the other. Still, however, our author does not object to the surgeon ("if he has the smallest doubt either of the nature of the accident or of its result") employing the means which may suggest themselves to his mind as holding out the hope of a successful issue.

Mr. Stanley, Assistant Surgeon of St. Bartholomew's Hospital, has kindly shown our author a preparation which conveys an idea, that the neck of the thigh-bone had been broken and afterward re-united. But a great deal of doubt must arise upon this subject so soon as it is known that—"the neck of the other thigh-bone, in the same subject, exhibited nearly similar appearances." Is it not more probable that this is merely that common change which arises from the absorption of the phosphate of lime in the neck of the thigh-bone, in old persons? We would also ask, whether or not there was any appearance of rickets or other disease in the bones of this subject?—But admitting, for a moment, that in this person both the necks of the thigh-bones were broken, and had both united—it would be so extraordinary a case as only to prove an exception to a general rule, and could never be admitted to establish or subvert a general principle.

Our author concludes this subject with observing that, in all cases in which the limb is but little shortened, and when a crepitus can be distinctly perceived upon rotating the bone, as it will not have the appearances of fracture within the capsular ligament, it will be best to treat it as a fracture external to that ligament.

Sir Astley then proceeds shortly to state the changes which the neck of the thigh-bone undergo in old and diseased persons, and he subjoins a letter from Mr. Colles, Professor of Anatomy and Surgery at Dublin, and who has most ably written upon the subject of fracture of the neck of the thigh bone. This letter we shall give at full length.

"*Stephen's Green, Feb.* 12. 1823.

"My Dear Sir,

"Since the receipt of your letter, I have carefully examined all the specimens of fractures of the neck of the thigh-bone contained in both Museums of our College of Surgeons. In that which is appropriated to the use of the School, I find seven instances of fracture within the ligament, each of these have been described in my paper on this subject, in the Dublin Hospital Reports. Since the publication of that Essay, the Conservator of our College-Museum has collected five specimens of fracture within the ligament. In this Museum are also four instances of fracture external to the condyle ligament. In the School Museum are two instances of fracture external to the ligament. Of this latter description of fracture, less than one half the number are united by bony union. Of the fractures within the ligament, not one has made a nearer approach to bony union than that described in the paper alluded to. I must say, that I have never yet seen an instance of bony union

where the fracture had been within the ligament. We have very many specimens of a disease of the head and neck of the thigh-bone, which is of frequent occurrence amongst our labouring poor. On this subject I have some idea of writing a paper for the next volume of the Dublin Hospital Reports, and of edeavouring to show, that in all probability the supposed cases of fracture within the ligament united by bone, were merely instances of this disease.

"If you have any wish for them, I shall have great pleasure in sending you sections of some of these cases, which I am certain might be passed upon many surgeons for fracture of the neck of the bone. "I am, my dear Sir,

"Your most sincere friend,

"A. COLLES."

The next subject in the Appendix is on *dislocation of the knee-joint*, of which a most interesting case is given from Mr. Teogood, Surgeon at Bridgewater.

Dislocation of the Os Humeri. A case of partial dislocation of the os humeri forwards, and a case of dislocation backwards on the dorsum scapulæ, are given under this head. For the latter, Sir Astley Cooper acknowledges himself indebted to Mr. Perry, (who dates his letter from the apartments of the House Surgeon of St. Bartholomew's Hospital) in the following terms:—"Mr. Perry, without solicitation, had the kindness to send me the foregoing case, for which I am indebted to him. Our large hospitals in London should be made as conducive as possible to the public advantage, by a liberal and reciprocal communication." Now, next to labouring hard himself, nothing is so praiseworthy in any individual, as exciting the younger persons to a zealous and industrious pursuit of their profession. We have known our author for more than twenty years, and, we have always found him inviting the younger branches of the profession to exertion, and assisting them, by all the means in his power, to attain that knowledge which would make them happy in themselves and useful to the public.

Fracture of the Neck of the Os Humeri. A fatal case of this accident is given from a patient, aged 72, admitted into Guy's Hospital. An interesting case of compound dislocation of the os humeri, at the elbow joint, is given as it presented itself at Guy's Hospital, and which terminated successfully. Of lateral dislocation of the radius, Mr. Freeman, Surgeon in Spring Gardens, brought our author an example. It is a very rare accident. A case is also given from Mr. Tyrrell, of dislocation of the radius forwards. Cases of fracture of the condyles of the os humeri—compound fracture of the olecranon, and compound dislocation of the wrist—ulna projected, and radius broken, conclude the appendix.

XIII.

BIBLIOGRAPHICAL RECORD:

OR

Works received for Review since last Quarter.

1. A Discourse on Medical Education, and on the Medical Profession. By JOHN G. COFFIN, M. D. Fellow of the Massachusetts Medical Society. Octavo, pp. 46. Boston, 1822.

☞ *We agree perfectly with Dr. Coffin, in the enlightened views which he has taken of the two subjects abovementioned. Would that they were practically acted on, both East and West of the Atlantic.*

---

2. A brief Description of the salutary Effects of Chlorine, as administered by Mr. Charles Troward, at the Fumigating Establishment, 25, Red Lion Square.

---

3. Reply to a Pamphlet, entitled "Notes on Dr. Mackintosh's Treatise on Puerperal Fever, by Mr. Moir, Surgeon," and to the Letters in the Appendix, by Dr. James Hamilton, Jun. By JOHN MACKINTOSH, M. D. Octavo, pp. 82. Edinburgh and London, 1823.

☞ *Dr. Mackintosh is milder in this Reply than we could have well expected, after such a scurrilous and libellous assault. He more than insinuates, (what we have great reason to think is true,) that Dr. Hamilton is the real author of Mr. Moir's pamphlet.*

---

4. Practical Observations on Fever, Dysentery, and Liver Complaints, as they occur amongst the European Troops in India; illustrated by numerous Tables and Cases. To which is annexed, an Essay on Syphilis. By GEORGE BALLINGALL, M. D. F. R. S. E. Surgeon Extraordinary to the King for Scotland, Regius Professor of Military Surgery in the University of Edinburgh, &c. &c. *Second Edition.* Octavo, pp. 305. Edinburgh and London, 1823.

☞ *We are happy to announce a new and improved edition of Dr. Ballingall's very valuable work. It has been eagerly inquired for; and forms an essentially necessary part of the tropical practitioner's library. We have not ceased, and shall not cease, to recommend it in the strongest terms to our brethren preparing for our Eastern colonies. Our readers are aware that we have given an extensive review of the Work in a former number of this Journal.*

---

5. Remarks on the Yellow Fever of the South and East Coasts of Spain; comprehending Observations made on the Spot, by actual Survey of Localities, and rigorous Examination of Fact at original Sources of Information. By THOMAS O'HALLORAN, M. D. Member of the Medical Academy of Madrid and Barcelona. Octavo, pp. 208, with a large Chart of Barcelona, price 10s. 6d. boards. Callow and Wilson, 1823.

---

6. Remarks and Practical Results of Observation on Scirrhus and Cancer. By ANTONIO SCARPA; translated from the Italian, with an Appendix, containing an Account of a Sanguineous Tumour of the Breast, and some Anno-

tations on the Text. By JAMES BRIGGS, Surgeon to the Public Dispensary, and Assistant Surgeon to the Lock Hospital. Octavo, sewed, pp. 62, with a plate. London, 1823.

---

7. Tentamen Medicum inaugurale de Sephilitide. Auctore S. HILL, M. D. Edinburgh, 1822.

---

8. The Utility and Importance of Fumigating Baths illustrated; or, a Series of Facts and Remarks, showing the Origin, Progress, and Final Establishment (by order of the French Government) of the Practice of Fumigation for the Cure of various Diseases, &c. &c. By JONATHAN GREEN, Member of the Royal College of Surgeons London, and late Surgeon in His Majesty's Navy. 8vo. sewed, pp. 115. London, 1823.

---

9. System of Anatomical Plates, with descriptive Letter-press. By JOHN LIZARS, F. R. S. Fellow of the Royal College of Surgeons; and Lecturer on Anatomy and Physiology, Edinburgh. Part I. The Bones. Eight plates, folio: and 119 pages of letter-press, price 10s. 6d.

☞ *The great aim of the author being the most scrupulous correctness, he has either drawn the different objects himself, or superintended the drawings made by his brother; so that by the pencil of the one, and the careful superintendence of the other, he trusts the plates will be found worthy of examination. To obviate expense, the letter-press has been printed in octavo size, which, in addition to the advantage of cheapness, will also be found more convenient for reference. The anatomy is blended with physiology and pathology, so as to prove interesting and instructive. We have no hesitation in pronouncing the undertaking to be a work of merit; and, from its cheapness, well deserving the attention of the anatomical student in particular.*

---

10. Archio fur Medizinische Erfahrung im Gebiete der Praktischen Medizin, Chirurgie, Geburtshulfe and Staatsarzneikunde. Herausgegeben von Dr. HORN in Berlin, Dr. NASSE in Bonn, Dr. HENKE in Erlangen, and Dr. WAGNER in Berlin. Julius, August, 1822. *In exchange for Medico-Chirurgical Review.*

---

11. Thoughts on the present character and constitution of the Medical Profession. By T. C. SPEER, M. D. M. R. I. A. late Physician to the Dublin General Dispensary, &c. Octavo, pp. 132. Cambridge and London, 1823.

---

12. Shampooing; or, Benefits resulting from the Use of the Indian Medicated Vapour Bath, as introduced into this Country by S. D. Mahomed, (a native of India;) containing a brief but comprehensive View of the Effects produced by the Use of the Warm Bath, in comparison with the Steam or Vapour Bath, &c. &c. By LAKE DEAN MAHOMED. Octavo, pp. 127. Brighton, 1823.

---

13. Elements of the Theory and Practice of Physic, designed for the Use of Students. By GEORGE GREGORY, M. D. Licentiate of the Royal College of Physicians of London, and Senior Physician to the St. George's and St. James's Dispensary. In two volumes. Volume the Second, pp. 450. London, April, 1823.

14. The Elements of Pharmacy, and of the Chemical History of the Materia Medica, &c. &c. intended as a Companion to the Author's Treatise on Pharmacology. By SAMUEL FREDERICK GRAY, Lecturer on Materia Medica, Botany, and Pharmaceutic Chemistry. Octavo, pp. 296. London, 1823.

---

15. An Exposition of the Principles of Pathology, and of the Treatment of Diseases. By DANIEL PRING, M. D. Member of the Royal College of Surgeons of London. Octavo, pp. 512. Underwoods, London, 1823.

---

16. A short Treatise on Operative Surgery, describing the principal Operations as they are practised in England and France; designed for the Use of Students, in operating on the Dead Body. By CHARLES AVERILL, Surgeon, Cheltenham. Octavo, pp. 172. Jackson, London. May 1823. Price 6s. boards.

☞ *The design of this little Work is good, and the execution very fair. No concise work exists, the sole object of which is to enable the student to practise surgical operations upon the dead subject, preparatory to performing them on the living. This desideratum is attempted in the present little work. The modes of operating, at present in use in England, and on the Continent, are concisely and perspicuously stated; and several of the operations are prefaced by historical remarks, which strikingly exemplify the improved state of surgery. The whole is arranged in a manner consistent with the author's wish of presenting the greatest number practicable upon one dead body. We think this little work will be a useful companion in the dissecting room, and we can recommend it accordingly. It is dedicated,* by permission, *to Sir Astley Cooper. We shall notice some passages in our next number.*

---

17. A Practical Treatise on the Symptoms, Causes, Discrimination, and Treatment of some of the most important Complaints that effect the Secretion and Excretion of the Urine, &c. &c. exhibiting a comprehensive View of the various Diseases of the Kidneys, Bladder, Prostate Gland, and Urethra. Illustrated by numerous Cases and Engravings. By JOHN HOWSHIP, Member of the Royal College of Surgeons in London, &c. Octavo, pp. 438, four plates. London, April 1823.

☞ *This very valuable work in our next.*

---

18. A Series of Elementary Lectures on the Veterinary Art; wherein the Anatomy, Physiology, and Pathology of the Horse are essayed on the general Principles of Medical Science. By Veterinary Surgeon PERCIVAL, of the Royal Regiment of Artillery. Octavo, pp. 377.

☞ *The diseases of horses are almost as interesting to the medical practitioner as those of the human subject—for the horse is his daily and faithful companion. We recommend this Work to our brethren, and we shall give some account of the performance in our next number.*

---

19. A Letter to the Right Honorable the Lord Chancellor, on the Nature and Interpretation of Unsoundness of Mind, and Imbecility of Intellect. By JOHN HASLAM, M. D. late of Pembroke Hall, Cambridge. Octavo, sewed, pp. 32. May 1823.

XIV.

EXTRA LIMITES.

MR. LIZARS' REPLY TO A CRITIQUE IN THE MEDICO-CHIRURGICAL REVIEW.

"*While our senses and judgment are in their present imperfect state, it is no wonder that men should differ so widely in their opinions of things, and in the consequences they draw from the appearances in nature.*" MONRO *Primus.*

SINCE the criticism of my Essay on Hernia, with its treatment, in the 10th Number of the Medico-Chirurgical Review, I have received the following letter from Mr. Low, Surgeon, in Queensferry, formerly a patient under this disease. As this gentleman's statement confirms the treatment of hernia, I trust the *Contributors* to the Review, will have a little more faith in the doctrine of *tanning* the living body, whether by '*splashing*' or '*bathing*.'

'Queensferry, 27th December, 1822.'

'Dear Sir,'

'The other day I read in the 10th Number of the Medico-Chirurgical Review, some observations upon your paper on the use of oak bark in reducible hernia. I confess I was not surprised at the incredulity of the reviewer, but I felt indignant at the manner in which he treats the subject. It is impossible that our profession can advance while new doctrines or new modes of treatment of diseases are canvassed in such a manner. Be this as it may, I have to call to your recollection, that I was one of your patients who used the oak bark, and I am truly happy to repeat your own words, with '*wonderful success*.' I had been affected with reducible inguinal hernia of my right side for two years, and many a time I was alarmed, when either constipation occurred, or when I failed to reduce it on a short trial. By the application of the oak bark, I have succeeded in completely shutting up the enlarged inguinal aperture, and preventing the intestine descending. I have left off wearing a truss for three years, and I can walk and ride on horseback for miles without the smallest inconvenience. I may say that I ride daily from fifteen to twenty miles, and, occasionally, between twenty and thirty miles.

'Besides its use in hernia, I have found the oak bark decoction equally serviceable in prolapsus uteri. The most marked instance in my practice, is the case of a woman 65 years of age, the mother of fourteen children, who had been subject to this disease after her first child, and excepting during the periods of gestation, she suffered great pain, and was often rendered unable to be of any assistance to her family. Her youngest is now upwards of 18 years old, and for the first twelve years, she had been unable to walk even about the house without suffering excessive pain. When I was called to her in 1816, I found her in bed in great misery. The uterus

carrying before it the vagina, descended beyond the labia between two and three inches, and the vagina was inflamed and excoriated. She was ordered to foment the parts with warm water until the inflammation should subside, which took place in two or three days. She then began the use of the warm decoction of oak bark, by first reducing the uterus, and injecting with a female syringe the medicine four or five times a day, wearing in the interval, a piece of sponge inserted in the dry state as a pessary, but which was after insertion moistened with the decoction. The sponge at first was about the size of a large apple, but was soon found necessary to be reduced, and when she left off wearing it, it was about the size of a large nut. At each time of injecting the bark, she described her feelings, as 'if it were drawing her together.' She remained the first ten days of the treatment in bed, and in less than three months she was perfectly cured. She has several times since walked about twenty miles a day without the least inconvenience.'

(Signed) 'JOHN LOW.'

'*To John Lizars, Esq. Surgeon,*
'39, *St. Andrew Square, Edinburgh,*'

To remove the unbelief further from the minds of the contributors, I beg to refer them to article 28, volume 1, of the Edinburgh Medical Essays and Observations, where they will find the account of a woman labouring under 'hernia inguinalis' cured by the application of a strong decoction of oak bark and alum with strong red wine. This woman had childred afterwards, without any return of the rupture. I have little doubt if all the periodical works were searched, that we should find many cases of this malady cured. It teaches us that there is a fashion in medicines as in every other thing, and that they must fall into disrepute, not according to their own demerits, but according to the ignorance and abuse of those who prescribe them.

JOHN LIZARS.

In corroboration of the above statement of the efficacy of a strong decoction of oak bark in the permanent cure of reducible hernia, the Editor has been informed by his esteemed friend Mr. R. W. Bampfield, that he has, by its use, completely succeeded in the case of a Mr. Thomas Roberts, who had been afflicted with an inguinal hernia about two years, which for some months previous to his application to Mr. B. for advice, had been increasing in size, in consequence of his not having worn a truss. The mode of treatment was rather different from Mr. Lizar's, as Mr. B's patient wore his truss night and day, and used a thicker compress of many folds of linen under the pad of the truss, which he wetted as often as it was becoming dry, without limiting himself to the application of it "three or four times a day only." On the 10th of October, 1822, the use of the decoction commenced, and on the 18th of November, the hernia did not descend even on coughing; the patient, however, continued the use of the decoction about three months.—Mr. B. has seen him lately, and he continues permanently cured. ED.

INTELLIGENCE.

Notice of the Anatomical preparations of Harvey, lately presented to the Royal College of Physicians.

They are six in number, and consist of the arteries, veins, and nerves of the body, displayed upon boards, to which they are attached either by some glutinous matter, or possibly, being dried upon the wood, adhere by the animal gelatinous substance itself. The blood-vessels are not injected, but the dissection of the cutaneous nerves, and of the ramifications of the arteries, is carried to great minuteness. If we consider that they are at least 200 years old, and only reflect for a moment upon the purposes to which they served, being beyond doubt the very preparations which the immortal Harvey employed in his lectures at the College, when he demonstrated the great discovery he had made, it is impossible not to consider them as objects of the most curious and interesting nature.

The history of their preservation, and the manner in which they have recently come into the possession of the College, adds, if possible, to their own intrinsic value. It is well known, that Harvey had no children, but having endowed the College with his library and other splendid gifts, he left by his will the greater part of his property to his brother, whose daughter was married to the Lord Chancellor Nottingham, an ancestor of the present Earl of Winchilsea. These anatomical preparations remained at Burleigh on the Hill, the seat of that nobleman, who, a few weeks ago, presented them, through the President, to the College, accompanied by the following letter:—

Copy of the Earl of Winchilsea's Letter to the President of the Royal College of Physicans.

SIR, South-Street, Feb. 22, 1823.

I have in my possession some anatomical preparations which belonged to the late Dr. Harvey, which I have great pleasure in offering, through you, to the College of Physicians, in the hope that they will consider them as worthy of their acceptance, and thinking that these specimens of his scientific researches can be no where so well placed as in the hands of that learned body of which he was so distinguished a member.

I have the honour to be, Sir,
Your most obedient, humble Servant,
WINCHILSEA.

To Sir Henry Halford, Bart.
President of the Royal College of Physicians.

Copy of the Answer of the President, &c.

MY LORD,—I am desired by the Fellows of the Royal Coll. of Physicians assembled to make their most respectful acknowledgments to your Lordship, and to express their thanks, in the strongest terms, for one of the most gratifying and valuable presents which the College has ever received.

They trace, my Lord, in these interesting remains, the first steps by which physic was elevated to the dignity of a science, and though experience has made great improvements in the art of preserving such curious and instructive objects; yet, viewed as specimens of the earliest anatomical preparations ever made, to illustrate one of the most important discoveries ever disclosed to mankind for its benefit, by the great master himself, who first expounded the circulation of the blood, these relics are invaluable in the eyes of the College, and will be preserved, doubtless, to the latest period of their possible duration, with religious care.

I am, my Lord, with most respectful attachment,
Your Lordship's faithful Servant,
HENRY HALFORD,
President of the Royal College of Physicians.

College of Physicians, March 24, 1823.
To the Earl of Winchilsea, &c.

WIDOWS' FUND OF ARMY MEDICAL OFFICERS.

The third anniversary dinner of this most excellent institution was celebrated on the 16th of May at the Thatched House Tavern, Sir Everard Home, Bart. in the chair. We observed many of the most distinguished ornaments of the profession present at this festive scene, and several neat and appropriate speeches were made as the bumper toasts went round. The chaplain of the institution made two speeches—one in the form of a grace, which was very short and formal, before dinner, the other in form of thanks, which was long and witty, after the bottle had made its rounds. As an apology for the high church rather than the Presbyterian grace before dinner, he urged the fear that not only the guests but even the dishes on the table would have looked *cold* on him, if he had kept them half an hour blessing the "creatures" on the board before them. He thought it most natural, therefore, to be grateful *after* we had made sure of the favours sent for our use. When the president retired, (which was at a very early hour) Sir James M'Grigor was called to the chair by general acclamation, and numerous were the plaudits which greeted him as he took his seat. The song, the glee, the toast went round, and at 11 o'clock the company retired, after an evening of great hilarity and good humour.

PENITENTIARY, MILBANK.

In a former part of this number, we have slightly adverted to the nature of the sickness prevailing among the convicts at the General Penitentiary, Milbank. The subject has since excited much public interest, and considerable discussion, both on account of the novelty (in London) and fatality of the disease. The appearance of "sea scurvy," in all its protean forms, among the inhabitants of Terra Firma, after it has been banished from its native element by the intelligence of the medical officers of the Royal Navy, and the liberality of government, together with the causes that have induced it, will necessarily form an interesting record of medical history, and we present to our readers such facts as we can glean from the authentic public documents already printed.

It will be remembered the Penitentiary was established at the national expense, for the humane purpose of reforming young criminals, and those not hardened by a long course of vicious practices, and of returning them to society instructed in all the moral, religious, and useful duties of life. A committee of some members of the House of Commons, and others, superintends the government and management of the prison, which is, as usual, vested in a governor, matron, and subordinate prison officers. The prison contains about 850 convicts, and the medical department has consisted of a "principal medical superintendent," to be consulted on all necessary occasions, and a resident surgeon.

It appears that in March, 1822, the attention of the superintending committee was directed to the reduction of the diet of the prisoners in health, which, at that time, consisted of the *daily* allowance of 20 ounces of bread, three ounces and a half dressed meat, one pound of potatoes, about one pint of broth, and two pints of gruel or porridge, to each individual; and they requested Mr. Copland Hutchison's (the medical superintendent's) opinion "upon the reduction the above prison dietary is capable of, with a due regard to the health of the prisoners," which he gave in a letter of which the following are extracts.

"REPORT ON DIETARY TO THE COMMITTEE.

"SIR, *Leicester Square, 22d March*, 1822.

"The Committee having done me the honour by your letter of the 18th instant, to request my opinion upon the present Prison Dietary, and the

'reduction it is capable of, with a due regard to the health of the Prisoners,' I beg to submit the following observations, and scale of Dietary, for their consideration.

"The inquiry as to what reduction their present Dietary will admit, involves some serious considerations, and can perhaps only be finally determined by the results of experience. First,—It must not be sufficiently reduced, to impair the health of the prisoner, or render him unfit on emancipation to work for his own or his family's subsistence. This would be adding to the burden of the Parish to which the unfortunate man may belong, and inconsistent with that humanity which tempers the justice of our laws. Secondly,—In considering this question, we cannot altogether take example from other Prisons or Houses of Correction; as, in the Penitentiary, the Convict is condemned to a much longer period of imprisonment, of which, being aware, his mind will have a much greater tendency to depression; and such exhaustion of animal spirits will be likely to terminate in disease: besides, it is obvious that a man may be very well able to subsist for a few months, a year, or possibly two years, upon a scanty allowance of food, without any apparent diminution of health or strength, but beyond this period, the powers of his constitution may not be able to sustain the trial. Thirdly,—The majority of the Prisoners sent to this Institution, will, I believe, be found to belong to the Metropolis—to have been earlier initiated into crime—and to have been more successful in their nefarious pursuits, than those sent from the various County Jails throughout the Empire, and have in consequence lived higher as to eating and drinking than the other class; and therefore will be more subject to disease by any sudden transition from intemperance to a very small regulated diet.

"Considering then these circumstances, without adverting to others that might be urged; I should be disposed to give it as my opinion, that the Dietary for the Penitentiary should stand thus.

"The daily allowance of bread to be precisely what it now *is*.

"Gruel the same, night and morning, warm.

"One quart of broth to the males as *now** made; the same quantity to the females employed in the wash-house and laundry: to the other females one pint and a half only, during six days in the week.

"Eight ounces of meat of the *same kind as they have heretofore been accustomed to*,† on Sundays, with one pound of boiled potatoes, omitting broth on this day altogether, for all descriptions of Prisoners.

"Although this be my opinion, after much reflection, and some knowledge of the constitutions of convicts, during a period of nearly six years that I have been the principal medical officer of the Penitentiary, yet I consider the question as very difficult of accurate solution, and would suggest to the Committee to take the opinion of others in the profession who may have distinguished themselves in science—such as Dr. Wollaston, Sir Gilbert Blane, Dr. Baillie, Sir Everard Home, and Mr. Cline—that the best information may be obtained on this highly important and interesting subject; and if the Committee do think proper to come to such a decision, I should recommend that the Gentlemen fixed upon be requested, in the first instance, to inspect the existing state of health of the whole convicts.

I am, Sir,
Your very obedient Servant,
A. COPLAND HUTCHISON,
Medical Superintendent."

R. Auld, Esq.
Sec. to the General Penitentiary.

The proposed reduction of Mr. C. Hutchison did not square with the Pythagorean notions of the committee, who, on the 4th of July, established the following scheme of diet:

---

* *Six ounces of fresh meat to the allowance of each individual's broth.*

† *After being boiled, and without bone.*

(PER WEEK.)

"9 pounds 3 ounces of bread { or to be changed by one pound of potatoes for each half pound of bread. } *Farinaceous Food.*

6¼ pints of gruel . . .

12¼ pints of broth (improved as before.)

"Animal food allowed to make the broth—two ox-heads for each 220 persons; and it is ascertained that each ox-head produces of clear animal food 8 pounds on an average, but allowing another pound for animal matter contained in the bones and extracted by boiling—this gives 288 ounces among 220 persons (one ounce and one-third to each person) being a weekly allowance to each couple of nearly 19 ounces of undressed animal food, or *two ounces and two-thirds to each couple daily;*"

by which they entirely excluded animal food in substance from the diet of the convicts. The committee in their printed report state that this scheme of diet was appointed under the sanction of the "*best medical opinion*;" the author of this opinion is at present unknown, but is certainly not one of the professional gentlemen recommended to be consulted by their medical superintendent—it is fair to suppose, the author of the best medical opinion did not remember it was at variance with the facts and opinion of Dr. W. Philip, who found the most concentrated decoction of beef did not afford much nourishment.—*On Indigestion, p.* 134-5.

From the 4th of July the dietary of the committee was continued; and early in Febuary last, four or five cases of the common forms of sea-scurvy occurred, which, on the 8th, was announced to the committee by the medical superintendent. Since that period the cases have been numerous and have displayed the common symptoms of spongy gums in a few cases, of ecchymosis and a board-like hardness of the extremities, contraction of the hams, the goose-skin, &c. as well as the more rare ones, such as scorbutic dysentery, diarrhœa &c. We are informed 27 have died in the Penitentiary since January, chiefly of scurvy in its various forms, and that there are, at present, about 200 cases of scurvy, scorbutic dysentery, and diarrhœa. Some post-mortem examinations have been made of those who have died of scorbutic dysentery, and there appeared the same ecchymosed state of the lower part of the alimentary canal that was evident in the legs of those who died of this complaint.

Soon after the scurvy appeared, the medical superintendent, who possessed considerable experience in scurvy, was virtually superseded by two physicians, who, in their report, distinctly attribute the induction of this disease to the reduced diet, in which opinion Mr. Copland Hutchison concurs. As the subject is sub judice, we shall abstain from any remarks, and be contented with expressing a sincere regret that the "best medical opinion" should have proved the worst that could have been adopted, and that the committee have not paid a little more attention to the opinion and advice of their "medical superintendent."

Dr. Emerson continues his Lectures on Medical Botany, at the Argyle Rooms, and will continue them every spring. We have been much gratified with the manner and substance of these lectures, and conscientiously recommend them to the rising generation of students in the West end of the town.

---

*Stricture of the Œsophagus,** (retrospective.) We are of opinion that facts are independent of dates, and that valuable suggestions have been thrown out before we were born. We conceive it to be no useless occupation to try back occasionally, in order to rescue some of these facts and observations from the oblivion which TIME brings over all things. Dr. Munckley, Physician to Guy's Hospital, some fifty years ago, relates a case of stricture of the œsophagus, which bore all the phenomena of organic disease. The patient was about

* Dr. Munckley, Physician to Guy's Hospital, in the year 1767.—(Trans. of the College, vol. 1.)

40 years of age when admitted into the hospital, and complained of inability to swallow food, even of the softest kind. "Whatever she attempted to swallow, after staying some time in the throat was thrown up again, by what appeared, from her description, to be a kind of convulsive motion of the œsophagus." The complaint had been coming on for some years, but latterly had alarmingly increased. She was now much emaciated—her voice hoarse, and her breathing disturbed. She could indicate the seat of the obstruction, but nothing external could be perceived. Dr. M. placed the patient under a course of mercury, keeping up a gentle spitting for six weeks, in which time every symptom of the disease disappeared, and the patient was discharged cured. The author has selected this case merely as a specimen of his general practice, by which, he had reason to believe, he saved many lives. "The only medicine," says he, "from the use of which I have ever found any service in this complaint, is mercury; and in cases which are recent, and where the symptoms have not risen to any great height, small doses of mercury, given every night, and prevented by purgative medicines from affecting the mouth, have accomplished the cure. But where the complaint has been of long standing, and the symptom has come on of the food's being returned through the mouth in the manner above described, a more powerful method of treatment becomes necessary. In this case I have never found any thing of the least avail in removing any of the symptoms, but mercury used in such a manner as to raise a gentle but constant spitting—and this method I have pursued with the happiest success." Our author does not pretend that this success was invariable. Some cases resisted the remedy, but many gave way under its influence. In such a dire affliction, and where we all know mechanical dilatation is too often impracticable, it may not be unwise to bear the above observations and facts in mind.

---

*Popular Medicine.**—We have not time or inclination to enter into the often litigated question respecting the propriety or impropriety—the policy or impolicy of treatises on medicine, addressed solely to the non-professional reader. Our own opinion decidedly is, that such works do injury to the public at large, and put money into the pockets of the regular practitioners. The well educated student can with difficulty avail himself of written descriptions and precepts, when he first enters on the practice of his profession—how then is it possible that the "clergy and heads of families" can apply this written knowledge to the treatment of diseases, the real nature of which requires all the discrimination of the physician to investigate? The public, however, will never be convinced of their own incapacity for treating diseases till the domestic medicine chest fails, and therefore works of the description now before us will continue to be written and read per omnia secula seculorum. All that the regular medical practitioner can do, then, is to advise his patient (if he will have a popular treatise) to purchase that one which is least likely to lead him astray, and which evinces most knowledge of the subject. While we venture to say that Dr. Thomas has not added to his reputation by the drudgery of compiling a system of domestic medicine, we have no hesitation in asserting that the present work is far superior to all those now in the hands of popular readers. This assuredly is no great praise, considering the wretched compilations which have, for some years, misled the public; but still we think it our duty to make this statement, in order that the professional public may know what to recommend in the few cases where their opinions are asked.

---

* The Way to preserve good Health, invigorate a delicate Constitution, and attain an advanced age; together with a Treatise on Domestic Medicine, &c. By Robert Thomas, M. D. &c. Octavo, pp. 705. Lond. 18[illegible].

TO CORRESPONDENTS, &c.

The letter dated March 28th, and signed "A friend and ———," has been duly received, and for which thanks are hereby returned. There is but one point requiring an answer in this place. The editor is *not* the author of the article commented on.

Mr. Peter Donalson, Chirurgeon of New-York, has put us to the expense of 1*l.* 8*s.* 6*d.* postage, for a pamphlet not worth one farthing. We must, in future, refuse all packets from America, and other foreign parts, that are presented to us through the medium of the post office.

In compliance with the wishes of several subscribers, we are preparing a review of Pearson's life of Hey, which will probably appear in our next.

In answer to several correspondents, who regret that so important a department as the Periscope should ever be omitted in the Journal, we have to state that arrangements are made to ensure the regular appearance of the Periscope in future. It was the wish to bring up the arrears of the review department at the close of the volume, which occasioned the omission in our last number.

The extraordinary epistle of "ECONOMICUS" has come to hand. We perceive that, with him, economy begins at home—for he left unpaid the postage of his letter. This, however, is not the most provoking part. He accuses us of driving a hard bargain with the public, and attaching a high price to our work. If Economicus be acquainted with the rudiments of arithmetic, he will find, on calculation, that the established limits of the Journal (14 sheets, or 224 pages) are somewhat below (not above) the ratio of price exacted by our cotemporaries. And excepting in one or two numbers, the Journal has regularly exceeded the specific limits by from eight to twenty-four or thirty pages of letter-press. If this be driving a hard bargain, it is wondrous strange. We beg to inform Economicus, therefore, that we will not commence the depreciation of our own labours till the public withholds its patronage—of which there are no very strong symptoms as yet manifested.

The review of ———, by "JUDEX," came to hand, but cannot be made use of. There is evidently private or personal feeling mixed up with the criticisms—a feeling which we never will admit into our Journal, when we can detect it. Tart criticism is doubtless agreeable to the jaded appetite, but frigid analysis is more wholesome for the hungry healthy stomach.

To PHILOSOPHUS we return thanks for his friendly advice, though we do not deem it prudent to follow it. Our's is an extremely limited monarchy, the course of our duty being very clearly defined—that of presenting as comprehensive yet concentrated a portrait of the current literature and science of the day as our pages will admit. To trend towards any particular department of science—and especially towards that pointed out by Philosophus, would be to disturb the salutary and natural balance of the whole. We do not pretend to divine, and we cannot expect to suit the tastes of all readers—But Philosophus may take it for granted that we can give a shrewd guess at that which pleases the majority—the minority must please themselves.

SCOTO-SEVERUS must be clean daft. Does he suppose we can compel men to write good books, or prevent their publishing bad ones? To praise the one or censure the other, without offering materials whereon the judgment of the reader himself might be founded, would be at direct variance with the fundamental principle of this Journal. And hence our individual numbers must vary in interest with the chance of the day. There are few publications, however mediocre, from which we cannot extract some useful matter; and, at all events, it would not be for the interest of the public to

pass over entirely unnoticed the inferior productions of the press. By exhibiting specimens of all, the reader is put in possession of the means of judging what he shall place in his library, and what not.

The able review of the different modern theories of fever, drawn up in the intellectual city, has been perused, but we dare not venture on its publication, at least at present. The public mind is in a state of *apyrexia*, and we should be loth to exhibit such powerful *antiphlogistic articles* till some symptoms of *excitement* reappear.

The communication from Dr. Bull, of Cork, has been properly disposed of.

Contents

OF

No. 14, Vol. IV, for SEPTEMBER, 1823.

Art. I.

Dr. Pring's Exposition of the Principles of Pathology and Therapeutics - - - - - - - - - - 241

II.

Mr. Swan's Inquiry into the Action of Mercury on the Living Body - - - - - - - - - - 277

III.

Dr. O'Halloran on the Yellow Fever of the South and East Coasts of Spain - - - - - - - - - 282

IV.

Analysis of the Article "Cas Rares," in the Dict. des Sciences Medicales - - - - - - - - - - 295

V.

DUBLIN HOSPITAL REPORTS.

[Concluded from p. 102.]

Art. 1. Dr. Crampton on the Application of Leeches to Internal Surfaces - - - - - - - - - 313
2. Dr. Byron on a Coagulum of Blood extracted from the Bladder - - - - - - - - - 316
3. Mr. Howship's Case of Obstructed Œsophagus - 317
4. Dr. Healy on a Paralytic Affection - - - 318
5. Case of perforation of the Perineum - - - ib.
6. Dr. Marsh on Jaundice - - - - - - 319
7. Dr. Cuming's Case of diseased Heart - - 331
8. Dr. Cusack's Case of fatal Hæmorrhage - - 334
9. Dr. O'Beirne on Traumatic Tetanus - - - 335
10. Dr. Burgess on Bronchotomy - - - - 339
11. Mr. Carmichael's Case of Hernia - - - 340
12. Dr. Scott's Case of dislocated Hip-joint - - 342
13. Mr. Todd's Dissection of a Dislocation - - 343
14. Mr. Todd on Diseases of the Lachrymal Gland - 344
15. Dr. Henry Marsh on Diabetes - - - - 345

VI.

Dr. Barlow on the Physiology and Pathology of the Animal Frame - - - - - - - - - - - 350

VII.

Mr. Howship on Diseases of the Urinary Organs - - 369

VIII.

Dr. Paris and Mr. Fonblanque on Medical Jurisprudence 383

IX.

Mr. Guthrie's Lectures on the Operative Surgery of the Eye 427

X.

QUARTERLY PERISCOPE.

1. Dr. Webster on Hooping Cough - - - - - 449
2. Mr. Wardrop on Neuralgia - - - - - - 450
3. Mr. Sterry on Strictured Colon - - - - - 451
4. Memoir on Œdema of the Glottis. By M. Bayle, M.D. 452
5. Dr. Sauter's Case of extirpation of the Uterus - - 463
6. Dr. Yeats's Case of a painful Affection of the Brain - 463
7. Dr. Bull's Case of Cancer of the Lip - - - - 464
8. Baron Larrey's Memoir on Epilepsy - - - - 465
9. Dr. Duchateau's Case of Abdominal Disease simulating Aneurism of the Heart and deceiving M. Corvisart 468
10. Ulceration of the Cæcum communicating with an external Abscess, and destroying Life. (*Private Correspond.*) 470
11. Mr. Cæsar Hawkins on Syphilitic Ulcers of the Larynx, observed at the Lock Hospital - - - - - 471
12. Ancient Facts better than Ancient Fictions - - 479

XI.

Bibliographical Record - - - - - - - 481

XII.

INTELLIGENCE.

Associated Apothecaries and Surgeon-Apothecaries, &c. - 483

XIII.

To Correspondents, &c. - - - - - - - 485

THE

Medico-Chirurgical Review,

AND

JOURNAL OF MEDICAL SCIENCE.

(Analytical Series.)

"Nec Aranearum textus ideò melior, quia ex se fila fingunt; nec noster vilior, quia ex alienis libamus, ut apes."

VOL. IV.] SEPTEMBER 1, 1823. [No. 14.

I.

An Exposition of the Principles of Pathology, and of the Treatment of Diseases. By DANIEL PRING, M.D. Member of the Royal College of Surgeons, London. Octavo, pp. 512. London, April 1823.

If the writings of Mr. now Dr. Pring, be not familiarly known to the profession, it certainly is not for want of their being analyzed, criticised, and advertised in journals, reviews, and newspapers. Our former cotemporary, Dr. Hutchinson, proclaimed the "Laws of Organic Life" to be the sublimest production of the age in which we live—and the author not to be inferior to a Locke, or even a Newton. To the disgrace of this age, the work lies mouldering on the shelves of the booksellers. In the third number of this Journal, for December 1820, we took the liberty of exposing the atheistical principles so freely broached, or rather openly avowed, in Dr. Pring's work, and of showing how dangerous, how unnecessary, and how uncalled-for was this incorporation of atheism and materialism with the principles or the practice of medicine. We are not without hopes that we have been instrumental in checking this propensity among our modern medical writers—and that so far we have been useful in our calling. But we acknowledged the author's talents, while we condemned his metaphysics—and we cannot think we deserved, in so doing, the epithet "pugnacious," which has been applied to us by a cotemporary.*

* An admiring reviewer of Dr. Pring, in the Literary Register for May 10th, 1823, substantially admits that we advocated a just cause, and not without

We are not vain enough to suppose that our animadversions made any impression on Dr. Pring himself; but whether or not, he has laid aside his metaphysical speculations and atheistical principles in the work before us, and kept to his text. On this account we enter on our task of analysis or criticism, without the slightest prejudice against the author; but, on the contrary, with a bias in his favour. We will analyze fairly, and criticise freely, if we see occasion; but we will "nothing extenuate, nor set down aught in malice."

We confess, indeed, that we were somewhat staggered at Dr. Pring's declaration in the preface that so important a work as the principles of pathology and therapeutics, was begun and finished during a summer tour of a *few months*, and that without other library than "*an odd volume or two of Shakspeare and of Don Quixotte.*" Whether in this Cervantic expedition the example of La Mancha's knight may have led our author to mistake windmills for giants, or exercise his toledo or pewter basins instead of Membrino helmets—or whether, on the other hand, the genius of Shakspeare may have led him sometimes to "turn physic to a farce," will be seen as we proceed. For the task of this last conversion it must be allowed that our author is peculiarly well qualified, being a skeptic in principle, and primed to the muzzle with logical distinctions and metaphysical subtleties. With far less of these acquirements, indeed, than Dr. Pring possesses, any man of talent and so inclined, might contrive to make the whole science of medicine appear a chaos of absurdity, contradiction—or, at least, of doubt. Many of our best principles (which, though erroneous, may be necessary, and even useful, in practice) might thus be turned into ridicule, and the youthful mind left to wander without guide, and indeed without hope, "through all the

---

effect. "We despaired," says the Reviewer, "of the frail support it might derive from our criticism, and with a truly honourable reserve, we distrusted our capability of doing justice to its (the work now under review) philosophic and speculative spirit—to its depth and occasional originality of thought—to its fulness of detail—its felicity of expression—and the manly idiomatic strength of its style. We forgot, for a while, that the powers and attainments of a mind, gifted like his, had been *basely sacrificed to the foul and pestilential doctrines on which we forbear to set a brand;* and we hoped that the *most pugnacious* of all critics, the mighty men in panoply of blue, would fling aside the hostile weapon, and give unto Cæsar that which they had so earnestly and severely exacted for God."

We *did* give unto Cæsar *that which was Cæsar's;* but we have yet to learn why we should also have given him *that which was God's.*

mazes of physical and metaphysical confusion." Such would assuredly be the way to retard, not advance, the science; and although many portions of Dr. Pring's writings have this tendency, we freely absolve him of all intention to produce such effects. His chief object is unquestionably to demolish error; but in medicine there is generally some truth mixed up with error, and the broom of correction, if too freely applied, may sweep away the good and bad indiscriminately.

Of a truth, it is much more easy to pull down an old house than build up a new one; and therefore Dr. Pring has chosen the more facile task of levelling systems already tottering or in ruins, rather than construct another to sink in turn by its own weakness, or the novelty of a rival. And yet it seems high time for some genius to start and erect the edifice of Hypothesis, if the following picture be correct, which we are not disposed to deny.

"It cannot be said, at this time, that any one system of medicine prevails exclusively; or scarcely, that of the various ones extant, one is more extensively adopted than another. Indeed, so unsettled is the state of pathology, that those who read are skeptics in all its doctrines; and those who do not read, are left to the guidance of a sort of intuition, which is not always productive of happy results; but very frequently suggests, through the course of a long life, only a reiteration of the same errors." *Pref.* p. 1.

This being the case, it appeared desirable to our author to take a compendious review of certain questionable doctrines, in order to expose a few errors and establish a few truths—so as to lay some kind of stable foundation for a future system of pathology amid this desolate waste of wrecks and ruins.

The humoral pathology claims our author's first notice, but not at a higher date of its existence than the days of Boerhaave, by whom it "may be said to have been perfected." He does not deem it necessary (and we think him right) to criticise the four humours of Hippocrates, the doctrines of the magi, the heat and moisture of Galen, or the four winds of Paracelsus.

It is easy also to conceive that our ingenious author has made sad havock among those portions of the Boerhaavian doctrine which attempted the explanation of animal phenomena by conflicts and harmonies, spherical and angular particles, calibres, remoræ, errores loci, salts, oils, and acrimonies. And yet he says the evidences in favour of this doctrine "are quite as conclusive" as those which support some of the doctrines of the present day. In fact, he acknowledges, and not without reason, that many parts of the humoral pathology are not without truth for their basis.

It is well known, to our cost indeed, that certain animal fluids, the products of disease, for instance the morbid poisons as they are called, are capable of producing similar diseases in other subjects. The *way* in which they produced their effects, as explained by the humoralists, is indeed sufficiently unsatisfactory if not ridiculous, and our author has set about an explanation upon other principles than those of mechanics—with what success the reader will soon see by the following extract:—

"It appears then, in the case of the peccant humours, that their phenomena are not produced by any mechanical agency. It is more agreeable with the results of analytical inquiry to conclude, that the animal poisons contain latent properties of a vital kind, which are related with those of the same kind in living bodies; that the phenomena of disease or death, which ensue from the operation of the animal poisons on living bodies, are according to the nature of the properties which are engaged in this relation. It seems proper, in all questions which respect the nature of the properties to which animal processes are to be assigned, to consider those agents as belonging to the department of life, whose operation cannot be explained by any perceptible analogy to the agency of chymistry or of mechanism.

"It appears then, that certain animal fluids are endowed with the qualities of poisons, by latent vital properties which are allied with the fluid material. This affinity between these subtle properties and the grosser fluid, prevents the dissipation of the former, and preserves also the characteristics of the latter; it serves at once to limit and to extend the relations of the poisonous qualities; by it these qualities have a fixed place; and by the medium with which they inhere, they are capable of mingling with the fluids of animal bodies, and of being, in this way, conveyed into the circulation. It appears probable, that by the existence or absence of this affinity between the active properties of the animal poisons, and a fluid medium, the distinction may be furnished between the contagious and the infectious diseases. According to the entire absence, or the degree of this affinity, we should find some diseases which are wholly infectious, others which are both infectious and contagious, and others which are only contagious." 11.

Thus, then, if we understand the Doctor's theory, these morbid poisons do not enter the system as foreigners or enemies, but as relations allied together by the bonds of vitality! Really we see no more lucid explanation of their modus agendi on this principle, than on the old and exploded one of "*peccant matter.*"

In respect to *errores loci*, our author thinks it quite impossible that such a thing, that is, an obstructed state of the vessels, should occur in any other way than by means of the secretions from the vessels themselves—or by blood being forced

into the capillaries. In either case he does not admit that the fluids, whether blood or secretions, are ever stagnant in the containing vessels. Thus in the most injected state of the conjunctival vessels in ophthalmia, the blood, he avers, is not at rest. Our author takes up some time to prove that biliary obstructions cannot arise, in any case, from the bile itself, but from some wrong action in the secretory structure of the liver—and so on, of other secreted fluids, about which our author is very knowing and very unintelligible.

Lentor and viscidity of the blood our author does not deny, since our senses show us great differences in these respects.

"That which has occurred to me in this respect, must also have been generally remarked by others. It is no uncommon circumstance to find blood taken from a vein of a very dark colour, and flowing almost like thin treacle, or pitch. Such blood may be remarked, upon separating, to contain but a very small portion of serum, and a crassamentum in general of weak cohesion. On the other hand, it is common to find venous blood, which consists of a small proportion of crassamentum, which, if the blood is uninflamed, is also of weak cohesion, and a very large proportion of serum." 19.

Whether a treacly blood may require a greater exertion of the heart to give it velocity than a watery blood requires, we do not pretend to know, though our author pronounces peremptorily in the affirmative, without an atom of proof that we can see. But be this as it may, we certainly did not expect to find a man, who discarded hydraulics from his system, making use of so mechanical an explanation as that of *thick* blood causing vertigo by its *weight* in the vessels of the brain.

"The person in whom I remember this state of the blood to have existed in the greatest degree, was dyspeptic, subject to vertigo, and temporary confusion, if not alienation, of mind.

"The symptoms just mentioned could not arise from any relation between this state of the blood and the action of the heart: *it is not, however, impossible that the brain, the function of which is so highly susceptible of the influence of pressure, may suffer by this mode, from the preternatural weight of the blood in its vessels.*" 21.

If this be not mechanical philosophy applied to the living system we know not what is. It is somewhat curious, that *too thin blood* affects the head nearly in the same way as the *heavy blood*, which is rather unfavourable, we imagine, to the Doctor's theory.

"It is commonly, and in my own experience it has been I believe invariably, the case, that those who have sustained great losses of blood, suffer more or less from what is called determination to the head. The symptoms most commonly are intense pain, and throb-

bing in the forehead or back part of the head, with a pulse seldom under ninety." 23.

We agree with Dr. Pring that the dropsical effusions which sometimes succeed profuse losses of blood, whether by accident or design, are not to be accounted for by the hydraulic explanation of the watery parts of the blood running off freely through the secerning extremities of the arteries. It is far more rational to suppose that the phenomenon depends on some derangement of function in the secerning powers, or vital properties of the vessels.

DOCTRINE OF SPASM.

Notwithstanding Dr. Pring's disheartening sentiment at the commencement of this chapter, namely, that "in the more theoretical sciences it often happens that the career of improvement is marked by the substitution of a new error in place of an old one," we think the doctrine of spasm and nervous agency in fevers and other diseases was an immense stride towards truth. In short, we consider many of Dr. Pring's strictures on the Cullenian doctrine as very futile, or, at the best, but ingenious sophistry. Take the following passage for an example.

"That the mere suppression of perspiration is a cause sufficient to produce fever, is an opinion which is generally admitted. The correctness of it will, however, be doubted, when we consider the frequency of the occurrence. It happens to most individuals, perhaps every day during the summer, in a greater or less degree; and is strikingly the case with those whose occupations subject them to sudden and extreme transitions of temperature; from the forge, the glass-furnace, the bakehouse, &c. to an atmosphere perhaps below thirty. But it will be remarked in these instances, the perspiration suffers only a temporary check; it returns with the recurrence of labour, or with the exposure to a higher temperature. In many of those examples of disease also, which are ascribed to suppressed perspiration, the phenomena of the disease continue after the perspiration has been restored, even more copiously than before. This is particularly observable in acute rheumatism, in pneumonia, and in some local inflammations connected with the puerperal state, which are ascribed to cold, as inflammation of the breasts, legs, and even peritonitis: in all which cases, I have seen, no doubt in common with many others, patients appearing as if boiled in sweat, while the disease has run a protracted course, perhaps, though rarely, to a fatal termination." 34.

Thus because glass-blowers and bakers, from long habit, are able to bear great transitions of temperature without fever being the consequence, we are to draw a general conclusion that all other people may experience the same thing with

perfect impunity. And again, because we see patients, in a certain stage of febrile diseases, "appearing as if boiled in sweat," we are therefore to infer that the *natural and healthy functions* of the skin are perfectly restored, and consequently that its previously suppressed or deranged functions had nothing to do in the production of the disease. This is admirable reasoning, and very well calculated for a debating society, where the establishing of a truth is quite subordinate to the supporting of an argument.* The following quotation will show Dr. Pring's talent for splitting hairs, and proving that causes are effects and effects causes.

"But the production of the phenomena which have been ascribed to checked perspiration, is liable to the alternatives of two modes; perhaps a third might be added. If the entrance of fluids into the extensive system of cutaneous vessels is resisted by a preternatural contraction of these vessels, it is obvious that those vessels which are not cutaneous must contain more than their natural proportion of fluids: this state would be one of general internal plethora. But we observe that, as a consequence of suppressed perspiration, one organ always suffers principally; that there is a particular determination to one seat. If a contracted state of the cutaneous vessels could throw an unnatural proportion of fluids into the internal ones, so preternatural dilatation of the vessels of any other seat or system would deprive the cutaneous vessels of their natural proportion. We have then to choose whether disease is maintained by suppressed perspiration, or whether the suppression of perspiration is a consequence of disease.

"If we consider here merely the order of occurrence, it would appear that the disease, say, for example, acute rheumatism—was produced by suppressed perspiration. At the same time, there is no reason why the muscles, rather than any other parts, should suffer from the suppression of perspiration; seeing that the simple circumstance of a diminished circulation in the skin is equally relative to the vascular system of every seat. In order that one seat should suffer a vicarious determination rather than another, it is necessary to suppose a predisposition in such seat which does not exist in others. This predisposition is very nearly allied to disease; and the admission of it goes near to confessing that the circumstance of a suppressed perspiration was preceded by processes of disease in that seat which afterward exhibits its chief phenomena." 36.

---

* Whatever importance Cullen himself may have attached to the *mere suppression* of *perspiration*, it is well known that, since the time of Darwin especially, the sympathetic affections of the interior organs, in consequence of the deranged functions of the skin, formed the prominent object of contemplation. But it suits our author's purpose not to notice the Darwinian theory, but to set up the weakest points of the Cullenian, as foils for his own prowess. This is the way with many people, who, like Johnson of old, argue for the purpose of conquering, not convincing.

Now all this puzzling and subtlety only goes, in our apprehension, to show, what has been long known, that when cold or wet is applied to the skin, and becomes a cause of fever or inflammation, the weakest organ or structure suffers the most. We do not think it worth our while to analyze any farther Dr. Pring's criticisms on the doctrine of spasm. We have not been able to profit by them ourselves, and it is very improbable that we should be able, through their medium, to edify our readers.

Dr. Pring passes from Cullen to Brown, without noticing Darwin, whose theories and practice were superior to all who went before him, and all who have followed him. We suspect that our author found it prudent not to meddle with Darwin, whose perfect acquaintance with every form, feature, and phenomenon of disease at the bed-side, gave him a decided superiority over book-practitioners and theoretical speculators, whose errors and inconsistencies Dr. Pring found it easier to expose. He has accordingly taken up a great many pages in the review of the exploded doctrines of John Brown, through which review we certainly shall not attempt to follow our critic. Speaking of the few good points in the Brunonian theory, he observes that there is one practice arising out of it which is worth retaining, namely, the practice of increasing very slowly the means of repletion after considerable privations or depletions.

"In the beginning of convalescence from fever, I have known a single meal of a nutritious or stimulating quality, to which the system had been long unaccustomed, under the previous treatment of abstinence and depletion, followed by apoplexy, which was fatal in a few hours. Nothing also is more common than violent determinations of blood to the head by sudden repletion after a copious loss of blood, whether from accidental hemorrhage, or by the frequent use of the lancet. I have known such determinations to be frequently produced by this cause in puerperal states; and the effects, of which this determination was the cause or the accompaniment, have exhibited every degree of cerebral disorder, from mere pain and throbbing in the head to delirium, epilepsy, or apoplexy: and I have known the first stimulating meal taken, contrary to direction, twelve days after a delivery which was attended with profuse flooding, followed immediately by accelerated pulse, pain in the head, eventually coma, and death. In a similar case, a single glass of porter, given injudiciously four days after delivery, has been immediately followed by apoplexy; in which state the woman remained for several hours, and from which she recovered with difficulty. These cases might be greatly multiplied; but this seems superfluous, as the fact does not stand in need of additional examples.

"It is common, in these severe and threatening forms of cerebral disorder, notwithstanding previous loss of blood, to resort to the

lancet, and to repeat the bleeding, copiously and frequently, if the symptoms continue. So far as I have had opportunities of observation, this practice carried to any great extent, to the neglect perhaps of other measures, has generally had a fatal termination. I have been in the habit of confiding in purgatives, to the almost total neglect of the lancet; but these purgatives have not been of a milk and water kind. If, after such copious loss of blood, the pulse has suddenly got up from eighty to a hundred and thirty or forty in a minute, with intense pain in the head, perhaps slight incoherence of speech, restlessness, &c. I have given six grains of calomel, and the same quantity of James's Powder, followed by a two-ounce draught of salts and senna, with half a drachm of jalap in it. If this has been rejected, it has been repeated in less than an hour, and repeated as often as it was rejected, until it has produced copious evacuations from the bowels. One, and perhaps an important, effect of such purgatives, is to make a great revulsion to the whole intestinal canal, which is commonly followed by almost perfect relief of the head, and perhaps an immediate subsidence of the pulse to a hundred, or a hundred and ten. The tendency to disorder of the head is afterward easily kept within safe bounds, by small, but repeated doses of Epsom salts; or an exacerbation, if it occurs, may be reduced by a repetition of the former purgatives. If, notwithstanding a full and continued purging, the disorder should persevere in its course, I have reason to think, from the results of cases essentially analogous, that putting the system suddenly under the full influence of mercury is more likely to subvert the disposition to cerebral disorder than the employment of the lancet. But before this measure is resorted to, the fatal termination of the case (unless a vigorous effort is made to avert it) must be so decidedly indicated, that the further prosecution of curative endeavours seems little better than a forlorn hope. In a pretty considerable experience, I have never met with a fatal instance of disorder of the head of this kind when, however threatening and severe the symptoms might be, the plan of treatment by purgatives, nauseating, and perhaps emetic remedies has been wholly or chiefly depended upon. And, so far as my recollection serves me, all the fatal cases which have come to my knowledge have been those in which the treatment of disorder of the head of this kind has been rested wholly or principally upon the use of the lancet." 86.

The baleful influence of the Brunonian theory on practice, leads our author to make some very good remarks on the treatment of fever. It rarely happens, he thinks, that fever is unattended with local inflammation of some important viscus. "In typhus the brain perhaps invariably suffers in a greater or lesser degree, either from determination of blood, from inflammation, or congestion." It is well known that stimuli, especially the alcholic stimuli, have a tendency to produce or augment these determinations, whether cerebral or visceral; and we coincide entirely in the following senti-

ment of our author—a sentiment, by the bye, which has been often expressed by ourselves before Dr. P. wrote.

"I apprehend it is generally, though perhaps not invariably true, that if visceral inflammation or congestion in fever can be kept within safe bounds, very little is to be feared from the constitutional state; and that the disease will almost, without an exception, run a safe, though perhaps a protracted course." 89.

He thinks that it is only in the advanced stages of what is denominated typhus gravior in this country, that stimuli can be used with safety or benefit—and, moreover, he rationally conjectures that if cases of ordinary typhus were properly treated in the beginning, we should have very few specimens of the typhus gravior to combat. Our author gives his testimony in support of the opinion, (always maintained by us,) "that typhus has two origins—one from external infection, and the other from a spontaneous generation of the disease in the subject affected by it." Dr. Pring commends moderate bleeding, especially in the beginning of typhus; but his favourite practice is purgation of a very active kind.

"When, in spite of the most efficient treatment by bleeding in the beginning, purgatives, &c. typhus has run into the state of coma, and a fatal termination seemed inevitable, and weaker measures have been of little promise, I have found it a successful effort to put the patient rapidly under the influence of mercury, which I have done, by giving ten grains of calomel every six or eight hours. I have known all the alarming symptoms cease as soon as the saliva began to flow freely from the mouth of the insensible patient upon the pillow; and the convalescence has been regular from that period. A boy, fourteen years of age, whose case was a neglected one, who had been ill of typhus a fortnight without the employment of medicine of any kind, and who had gone progressively from fever, with determination of the head, into a complete state of coma, recovered his sensibility, and understood what was said to him in thirty-six hours, under a salivation, produced in this time, by large doses of calomel and mercurial frictions; he made many efforts to speak, at first unsuccessfully, and it was nearly a week before the power of articulation was restored. This boy recovered so perfectly, as to be no longer under medical care. His appetite afterward became voracious; and owing, most probably, to an imprudent indulgence of it, he had apoplexy, which occurred soon after a meal, and died in a few hours.

"I have also known coma and insensibility to occur after a three months course of typhus, beginning with the atonic form, and becoming inflammatory in its progress. The death of this patient (a girl about twenty years of age) was expected every hour. As a last effort I gave her ten grains of calomel every six hours; and although strabismus accompanied the insensibility, in so great a degree that very little more than the conjunctiva of either eye was

visible, she began to recover as soon as the saliva ran from her mouth, which occurred on the second day of this treatment; she eventually regained a perfect state of health.

"It appears to me, that the state here described, or one nearly approaching to it, is the proper stage for the employment of mercury, with a view to a complete constitutional affection by this remedy. At the same time, its employment with this view is not limited to this stage: it is a powerful means of arresting tendencies of disease which threaten to be fatal, if not effectually checked; when, from the character, or degree of the symptoms, the more common remedies appear inadequate to this end. Among other modes of the curative operation of mercury, perhaps the determination to the whole glandular system, of which effect salivation may be considered only as a part, or as the indication of a more general affection of this system, comprising the liver, kidneys, &c. together with the skin, is by no means the least important; and an influence by mercury, short of this effect, would, in extreme cases, be most probably useless. This general affection of the glandular system is scarcely less positively indicated by the circumstance of salivation than by the stools, which consist commonly, under the mercurial affection, or soon after it, of depraved hepatic secretions of almost every variety. The surface of what might be called counter-determination, is also greatly extended by the action of mercury upon the intestinal canal." 102.

Of the stimulating treatment of typhus, our author has little experience, and the less the better. Yet he has "seen patients stimulated into fatal apoplexy, or suffered to go quietly into this state." He mentions a remark of Dr. Falconer of Bath, and corroborates it by his own experience, that subsultus tendinum in fever is invariably a fatal symptom. We certainly have seen patients recover after this symptom had appeared, though it undoubtedly is a very unfavourable omen.

The fourth chapter is on the "*pathology of the determination of blood*"—a term in medicine of no modern date, although now more frequently used than formerly, because the doctrine connected with it is more completely organized. Frederick Hoffman, indeed, was reproached for having made local determination of blood the cause of fever, of inflammation, of spasmodic, and of most other diseases. There is, therefore, no novelty in the doctrine.* It is evidently, however, to the late Dr. Parry that we are indebted for all the perfection which this doctrine of determination has yet obtained.

* It is astonishing how much of all the new doctrines and ideas are to be found in the works of Hoffman—especially the Abernethian doctrines which have been considered so original.

Our author bears testimony to the spirit of true philosophy and research exhibited in Dr. Parry's works—"which has been equalled by few of his cotemporaries, and has rarely been surpassed, in medicine at any period." By this tribute our author does not bind himself to a tame acquiescence in all Dr. Parry's tenets, some of which appear to him essentially erroneous. But notwithstanding this defect in some of Dr. Parry's doctrines and principles—"they are nevertheless illustrated by so extensive an experience, and by observation of so much worth, that he who is not acquainted with the results of this experience and observation, will fall short of the most enlightened views of medicine which are furnished by its present state." Our readers are too well acquainted with Dr. Parry's pathology to require any recapitulation of his doctrines here; and as the greater part of Dr. Pring's critique turns on the action of the arteries in health and disease—a subject on which we have often enlarged in this Journal, we find little in this chapter on which we can animadvert with advantage to our readers. Some points, however, we shall cursorily notice. We stated in our review of Dr. Good's work, in the last number of this Journal, our disbelief of a phenomenon said to be observed in the arteries of an inflamed part—namely, a greater number of pulsations than in the arteries of a sound part in the same subject. Eight years ago our author was a believer in this doctrine; but since that period he has become skeptical, and inclines to think the whole a delusion. We are confident, from considerable attention to the subject, that the existence of the phenomenon in question is a physiological impossibility.

"From having repeated this kind of experiment many times, I am inclined to think the result of a general examination of the fact in question, of the same kind, would be a decision in favour of the equal pulsations of the arteries of inflamed and of uninflamed seats: in other words, that both correspond with the action of the heart; and consequently, that a proof of an independent faculty of contradiction and dilatation belonging to the arteries is not to be derived from this source." 117.

In respect to the litigated question, whether or not the arteries *alternately* dilate and contract, in accordance with, and, in fact, producing the pulse, Dr. Pring seems to take, with ourselves, the negative side of the question, though with some hesitation. "I incline to the opinion," says he, "that the proofs are stronger against than in favour of the alternate dilatation and contraction of arteries." And again, a little farther on, he observes—"If it is proved, as upon the whole I think it is, that the arteries have no mechanical action by which they can contribute to the circulation, this phenome-

non, in the present stage of our physiological progress, remains absolutely unexplained. It is inexplicable on mechanical and chymical principles, he avers, and therefore, we must have recourse to vital.

"Little more is at present confessed, with respect to the arteries, than that they are passive tubes, endowed merely with a vital, or tonic, and an elastic power of contraction.

"But it is probable that the different orders of vessels have powers which are relative to the fluids they circulate, or to those exposed to their action, which are additional to those of mere contractility. That their vital properties are capable of elaborating changes on their fluid contents, and of producing many phenomena which occur in the course of the circulation, and which certainly cannot be explained in agreement with any mechanical laws." 121.

Something equivalent, Dr. P. remarks, to the agency in question, is tacitly confessed with respect to the secerning extremities of arteries—a power superadded to, and apparently independent of mechanical agency. We see also the mesenteric absorbents exercising a faculty of selection or separation, by which they uniformly obtain a similar fluid from amidst the heterogeneous mass with which men, to gratify their palates, take the liberty of filling their bowels. The separation and conveyance of this fluid from the intestines to the subclavian vein is not to be explained without a recurrence to the agency of these same mysterious properties of life. Any inquiry into the identical nature of these living properties would be labour lost, and therefore, we can only seek for some analogical explanation. We are reduced, says our author, to two alternatives—"1st, That the vital properties of the vessels, by an immediate influence upon the blood contained in them, assist in the transmission of this fluid throughout their respective systems: or, 2d, That this end is promoted by a function of the capillaries." How the first supposition can be maintained, without the mechanical agency of contraction and dilatation, we are utterly at a loss to conceive. The second alternative—the agency of the capillaries—may be of a less visionary character, Dr. Pring thinks. We agree with him that the capillary vessels are endowed with various and wonderful powers to accomplish their different tasks; but when he imagines a power of *attraction*, which they possess for the purpose merely of assisting the heart in the *motion* of the blood, we leave him to his imaginings, as we consider the capillaries have other fish to fry. To us it appears most astonishing that men, after seeing a powerful muscular apparatus placed in the centre of the vascular system, pumping the blood from the veins, and propelling it with great force along the arteries, should yet ran-

sack their brains for auxiliaries to this muscle, among capillaries that are acknowledged to have other and distinct operations of great importance to perform! If the capillaries are so kind as to assist the heart in moving the mass of blood, why should not the heart, in return, assist the capillaries by secreting a little of the bile, or the urine, or the perspiration? Really we think it a very ungrateful organ not to repay the manifold obligations it is under to the capillaries for thus voluntarily doing the duty of the heart in addition to their own!

"It has been remarked," says Dr. P. "by Haller, that the circulation is continued in the small arteries after the application of a ligature to the aorta, or even after the heart has been removed; a circumstance which agrees perfectly with the theory here suggested, although it has not, to my knowledge, been hitherto explained." 127.

Why this has been long and perfectly explained by Dr. Parry and others, who have shown that the arteries, in a state of health, are always distended by blood, beyond the calibre to which their elastic and vital powers would reduce them, were the supply of blood from the heart cut off. When a ligature is placed on the aorta, this supply is interrupted, and the arterial trunks go on contracting and pushing the blood through their corresponding capillaries till, in fact, they become completely emptied, as we see after death. This is plain and obvious to the meanest capacity—but on Dr. Pring's *too acute* perception it is lost. Thus a "microscopic eye" will enable a man sometimes to see minute objects that escape the optics of others; but, on the other hand, it often prevents him from seeing the most sensible phenomena that pass before him.

But while we reject this hypothesis of Dr. Pring's, respecting the magnetic or *attractive* power of the capillaries, in *aid of the heart*, we are far from denying them this power *for other and more necessary purposes*. We firmly believe, that when the *nerves* of a part are excited, whether by internal or external causes, they communicate a power to the *vessels* of that part of attracting a larger share of blood than they usually contain. This is what we have often alluded to as an erythism or erectile process or power of the vessels. We have a striking example in the vessels of the membrum virile, which suddenly expand themselves, as it were, when certain objects strike the mind's or the body's eye. And we every day see the same thing in other parts of the body, when lytta, for instance, is applied to the skin. The nerves are first excited, and then the capillaries fill with blood.*

* It is certain that the heart has the power of expansion, and by analogy it

So, when any stimulus is applied, or wound inflicted, we witness the same phenomena. No doubt this power is a wise and important gift, and designed to answer most necessary purposes in the system; but we cannot bring ourselves to believe that it is exerted at every systole or diastole of the heart, to aid that organ in the mere circulation of the blood —an aid which seems by no means necessary.

Nec deus intersit nisi dignus vindiæ nodus.

* Dr. Pring has taken up more than a score of pages to bring forth the conjecture, for it admits not of direct proof, that determinations of blood are not the first link in the chain of diseases, whether local or general, but that, on the contrary, the nervous or sentient system of the part is first disturbed or excited, and then follows the vascular impulse. We appeal to our readers whether this be not the doctrine we have uniformly maintained for years past, and therefore, we need not go over the same ground again.

While our author denies that determinations of blood are invariably causes or concomitants of disease, he acknowledges that they are so generally. Yet he thinks that blood-letting is too implicitly trusted to in the treatment of inflammatory complaints.

"I have heard," says he, "of persons losing a hundred ounces of blood in twenty-four or thirty hours in pneumonia, and sometimes of their having dropsy shortly afterward. I presume, as I have met with many cases of pneumonia, and some of them very severe, that if this violent practice had been necessary, I should by this time have had reason to think so. I do not remember having had occasion to take above sixty or seventy ounces of blood from a patient in pneumonia, throughout the course of the disease: I have rarely found it necessary to take above thirty: and yet, negligent as this might appear of an important measure, a uniform success has proved to me, that copious blood-letting is not so essential as it has commonly been considered. Principally with a view of ascertaining the powers of other remedies, or how far they may stand in the place of bleeding, I have treated a case of pneumonia successfully without a single depletion of this kind. The patient took first a strong purgative of calomel, salts, senna, and jalap; a state of constant nausea, with sometimes vomiting, was afterward maintained by means of squill, emetic tartar, ipecacuanha, and nitre in large doses, with frequent purgatives of

---

is probable that the arteries may have the same; yet it is evident that the mere *relaxation* of tonic power in any set of vessels would cause them to swell with blood, as there is a constant pressure on this fluid, which would force it in excess to whatever point there was least resistance. But in whatever way this is done, there can be little doubt it is through the agency of the nervous system.

aloes, calomel, salts, senna, jalap, &c. and the chest was once blistered. I have not frequently met with symptoms more severe than those of this case in the beginning; and a case never occurred to me, the progress of which was more favourable. The means just mentioned gave me almost an absolute control over the symptoms: and with those who understand their principle and employment, there are a few medical agents more powerful. It is possible, by these means, in conjunction probably with a bleeding, to make a very decided impression upon an inflammatory disease; sometimes to produce syncope in a few hours after their institution: and there are few cases in which this co-operation of bleeding, blistering, purgative, nauseating, or even emetic medicines, all producing their effects upon the system at the same time, is more strikingly advantageous than in those of bronchitis, or of croup.

"I have known pneumonia, in about the middle of its course, when the feet and legs became red and anasarcous, with a pulse of a hundred and thirty in a minute, treated by a diet of beef-steaks and raw onions, a quart of porter, and two or three glasses of gin and water per diem, with scarcely an aperient once in three days. This patient recovered in a short time: the treatment was instituted by a very old practitioner, whose experience had been so extensive, that I know of few men in the profession who could have had so much. On mentioning this case to the late Dr. Parry, he said, he once knew a man who fell from a scaffolding many feet from the ground, and when people expected that all his bones were broken, he got up, to their surprise, and walked away unhurt: but, Dr. Parry remarked, this does not prove that persons might fall from scaffoldings twenty or thirty feet from the ground with impunity. Few men have had a more extensive experience than the late Dr. Parry: but that of the gentleman, who instituted the above stimulating plan was much greater; and he, in his turn, would consider recovery from anasarca, even though connected with visceral inflammation, by any but stimulating means, as complete an anomaly as the accidental integrity of the man's bones who fell from a scaffolding thirty feet high." 207.

Nevertheless our author is far from objecting to blood-letting in pneuomnia. He considers it, indeed, as the main item in the methodus medendi.

"During the winter of 1820 and 1821 bronchitis prevailed as an epidemic; and many of the cases, after the first inflammatory violence of the symptoms was subdued by bleedings, blisterings, and all the artillery of the antiphlogistic plan, ran a long course, which threatened to end in consumption. The chronic symptoms were cough, short breathing, pain, or cough, or both, on inspiration, moist and sometimes clean tongue, pulse averaging from ninety to a hundred or a hundred and ten, flushing of the face, heat of skin, and buffed blood. In some of these cases, in which these symptoms did not yield to the usual remedies, and their fatal termination appeared almost inevitable, I have given two grains of calomel, with

James's powder, three times a day. I had not occasion to resort to this practice in more than four or five cases, and they all recovered. The calomel quickened the pulse a little before the gums were affected, but after a slight ptyalism was produced, the pulse commonly subsided to seventy; the patients lost their other symptoms, and were regularly convalescent from that period. I have succeeded also by suddenly mercurializing the system, after bleeding, blistering, and a purgative have been premised, in bronchitis, which, from having been previously neglected, has, in an advanced stage, threatened suffocation every hour. In order to make the greater impression on this state of disease, I have combined emetic tartar with the mercury, as by giving two grains of emetic tartar, and ten of calomel, every six or eight hours. These medicines, in this combination, are capable of producing their separate effects." 209.

Our author has tried mercury to the extent of salivation (which, in general, is not easily produced) in phthisis: and, in several cases, all the symptoms of the tubercular form of the disease were suspended for a time by the remedy. The recovery has been so considerable, in some instances, that the patients were pronounced well by their friends; but, as may be expected, the suspension of the disease was only temporary.

"I have, on the other hand, known cases of ulceration, following acute inflammation of the lungs, which has become chronic, and continued many weeks with quick pulse, colliquative sweats, pain on inspiration, buffed blood, and purulent expectoration, which have recovered perfectly after salivation." 210.

We have often proved the truth of the following observation, which we deem of some importance.

"But, as before remarked, it is sometimes extremely difficult (I have once found it impossible) in these, as well as in some other forms of organic disease, to make mercury produce its usual effects. It will quicken the circulation: but the local determination, which is in general connected with every preternatural diathesis, will oftentimes be to the seat of the disease, rather than to the glandular system, on which mercury, at other times, appears to exert so specific an operation. The symptoms of the disease, under such mercurial influence, are in these cases rather increased; and the vascular action excited is unfavourable to the local disease, or rather concurs with the particular effects of mercury on its seat, to hasten its progress." 211.

Dr. Pring's experience is decidedly against blood-letting in any form of phthisis, and to him setons, issues, and perpetual blisters, have generally appeared rather prejudicial than otherwise. On these last points, his experience and ours do not exactly coincide. Our readers will remember some observations which we made lately on the danger of large and

repeated depletions in acute rheumatism. We are glad to find that Dr. Pring's experience corroborates what we have there said. Our author trusts more to purgatives with calomel, elaterium, aloes, salts, senna, &c. We deem the following short case worthy of being inserted here, as we have witnessed several such, and with similar results.

"A gentleman had chronic rheumatism, chiefly affecting his knees and shoulders. He went out on a cold, damp day: in the evening he had rigours; the rheumatic pains left the extremities, and he was taken with something like syncope, sense of constriction at the bottom of the throat, of weight on the chest, with a fluttering irregular pulse of about a hundred and sixty in a minute. I opened a vein in the arm, but could not get more than four or five ounces of blood, which was buffed. I gave him a full dose of calomel, salts, senna, and jalap, which produced eight or ten stools in as many hours, covered his chest with a blister, &c. The next day he was able to lie flat in his bed, and his pulse was more regular and slower, though still quick and intermittent. He took repeated doses of squill and calomel, with salts, senna, &c. every morning. The squill sometimes produced vomiting, and in about four days his mouth became affected by the calomel; his pulse almost immediately afterward came down to sixty, was perfectly regular, and all the other symptoms ceased. He was confined a few days to the house by the soreness of his gums and tongue; this affection subsiding, he recovered rapidly." 217.

He has "found chronic rheumatism, in other instances of considerable duration, yield, after bleedings had been premised, to alterative doses of calomel with sarsaparilla. The gums have commonly been a little affected before the symptoms ceased, and the alvine evacuations have been copious, both during the course, and after it, without any additional purgative." Colchicum has not succeeded in our author's hands. We have often found it beneficial, especially when it purged or vomited. In a few cases the extract of the seeds of colchicum (one grain for a dose at bed-time) has proved more successful than any other preparation of the meadow saffron. The following passage corroborates the strictures which we made some time ago on Dr. Abercrombie's therapeutical indications in abdominal inflammations.

"In peritonitis, I have trusted also much more to purgatives than to bleeding, and I have no reason to regret this confidence: for out of many cases, under every variety of circumstance, I never met with one which terminated otherwise than favourably. It has appeared to me the first object in inflammations of the bowels, whichever coat may be the seat of it, (and on this point our diagnosis is imperfect) to overcome the constipation with which such inflammatory disease is commonly, or frequently attended. This

design is chiefly founded upon the experience that, when this effect is accomplished, the cure is in our own hands. The theoretical design of this practice is less to evacuate the bowels, on the supposition that their contents may be instrumental to the disease, than to subvert the state of disease in the bowels, by the employment of measures which act upon its seat. Among other modes of the operation of purgatives in inflammation of the bowels, perhaps the secretion which these means excite throughout the intestinal canal, is not the least important. We know that secretion is an ending of inflammation, and that it is frequently the spontaneous mode of relief to the vessels of an inflamed seat.

"The use of purgatives in enteritis has been objected to, on the ground that they act by stimulation; and that stimuli, applied to its seat, must increase inflammation. The effect, however, is otherwise; and the testimony of experience must on this, as on other occasions, supersede all *a priori* reasoning. But, as a matter of reasoning, perhaps the conclusion against purgatives on this ground is not legitimately inferred. It does not follow, that an agent which is related with a secreting function, so as to increase it, should also be so related with inflammation (which frequently suspends secretion,) as to augment its intensity. On the contrary, in the way of reasoning, it would appear, that if secretion is suspended by inflammation, that which restores secretion must diminish inflammation. Setting reasoning, for the present, aside, I suspect, that in the cases in which purgatives have been supposed to increase intestinal inflammation, it is because these means were inadequately employed." 219.

Purgatives, in intestinal inflammation, have been objected to on the ground that they are quickly rejected by vomiting; but this objection is not valid. Our author, after premising bleeding, gives at first six or eight grains of calomel, followed in an hour by a black draught, with half a drachm of jalap. If this be rejected by vomiting, it is repeated in an hour or two, and so on, with this or other forms of purgatives, until the bowels are opened, when, in general, we find the ball at our own foot. Injections are powerful auxiliaries to these means.

"Among other instances of intestinal inflammation, I have met with many of puerperal peritonitis. They have invariably done well under adequate purging: bleeding has, in some instances, been premised, but never carried to a great extent; and of this disease, as of some before mentioned, I may say, the greatest number of fatal instances which have come to my knowledge have been those in which the treatment has been rested upon bleeding, to the neglect of other measures. Blisters on the abdomen are useful auxiliaries, if the irritability of the system will permit their employment. Leeches may also be beneficial; but both these means are, I believe, chiefly useful, inasmuch as they furnish an excuse for covering the abdomen with a large bread and water poultice.

"Although I have never myself employed spirit of turpentine in puerperal peritonitis, I have had opportunities of witnessing the effects of this practice; and the results, so far as they have been known to me, have been favourable. The mode in which it has been given has generally been in doses of two drachms or half an ounce of the turpentine, with an equal quantity of castor oil; and either of these doses has been repeated, perhaps, in six hours. The mode of operation of this remedy has appeared to me to be the common one of purgatives; of which class of medicines it is one variety." 221.

Although our author has been generally successful by the means above mentioned, yet cases have occurred where he was foiled, and the disease seemed hastening to a fatal termination. In such instances he has given, as a *dernier ressort*, ten grains of calomel every six or eight hours, and with success. "Copious stools have quickly followed a sudden salivation, and a favourable convalescence has afterward been maintained by purgatives of the weaker sort."

"I know of no case in which this remedy, pushed to such an extent, is more indicated by principle than in this: the general determination to the glandular system before spoken of, is one among other modes of subverting inflammation in a seat of disease, and the importance of resorting to it is great, where the continuance of inflammation may be fatal by its relation with the function of the structures which it invades, or by the prejudice which, in other instances, may be suffered from disorganization. On this latter ground the practice has been adopted with a success to which my own experience bears concurrent testimony in iritis, the progress of which I have found immediately arrested as soon as the saliva began to flow. I have also, in children, known constipations which have resisted all previous means give way when the mouth has become affected by calomel." 222.

In phrenitis, from local injury, our author acknowledges that the superiority of blood-letting over all other means is very conspicuous. Purgatives and nauseating antimonials, however, are important auxiliaries. We have had occasion often to allude to the curious and very interesting experiments of the late Dr. Thomas Seeds, who showed that by bleeding animals to death, the vessels of the brain were gorged, and sometimes the blood, or other fluid, extravasated. The following case will be found to bear on this curious result of extreme bleeding, besides affording some interesting therapeutical information.

"A woman was delivered suddenly and unexpectedly, whilst standing in her room, at a distance from the bed; the child fell on the floor, but the funis was not broken; there came on instantly a copious flooding. I found her, as soon as I arrived, insensible, and

the floor was deluged with blood: she had no pulse at either wrist, &c. Twelve hours afterward she had a pulse of an hundred and twenty in a minute, bounding of the carotids, dilated pupils, and complete insensibility. She lay in this state more than a week. I purged her every day; her pulse was always reduced after the action of the purgative, and regularly increased during any long interval of its operation. This woman was a catholic; and at the end of a week, as it was expected she was to die, she received extreme unction, and every thing was made ready for this event. I continued the purgative of calomel every night, and salts, senna, and jalap, the following morning. On the ninth day she recognised her husband and children, spoke to them, &c. and, as she was better, I thought I would omit the purgative: she had no stool for about twenty-four hours, and then relapsed into her former state of insensibility. I gave her an active purgative, and she recovered her faculties and speech, in as great a degree as before the omission of the purgative, as soon as it had operated. Her convalescence from this time was regular, and during the whole period of it, a slight purgative, frequently repeated, together with a gradual depletion, kept her free from any considerable degree of affection of the head." 224.

Some remarks are made on the treatment of insanity, apoplexy, &c. Dr. Pring relates the case of a female, who became insane when she got thin, and got sane again on becoming corpulent. "The cure of insanity," says he, "by obesity, is remarked as a common circumstance. It may be cured also by an abscess, by a carbuncle, or by pregnancy; facts which, if duly considered, *are not very complimentary to human genius.*" We really see no great reason to depreciate human genius, (which cannot be manifested without a sound brain) because certain changes in the constitution render that brain capable or incapable of such manifestation. But we do think that it is "not very complimentary to human genius," to be perpetually catching at every weakness and imperfection in our frail nature, for arguments in favour of levelling man with the grass he treads on. Yet the Materialist is eternally intruding his own sublimity of genius upon us at the expense of that human nature in which he seems to forget that he shares in common with the rest of mankind.

Our author is disposed to think that blood-letting in apoplexy is in some, though not in all cases, overrated. As a specimen of Dr. Pring's mode of objecting to received principles in pathology and therapeutics, we may instance his reason for the above doubt. As blood-letting, says he, is almost invariably resorted to in apoplexy, our experience of its efficacy is, on this account, defective, because we have not the opposite experience for comparison, viz. total neglect of bleeding. But have we not strong evidence when we see

a patient recover his sensibility in exact ratio as we draw blood from the system—and when we find, in fatal cases, effusion of blood in the brain, or extreme turgescence of its vessels? That blood-letting will not save life in all cases is most true. Who could expect such a thing, who knows the various states and degrees of disease in the brain, or who sees the quantum of blood sometimes effused into the substance or on the surface of that organ? But no species of evidence is free from doubt, cavil, and objection in Dr. Pring's mind. We verily believe that he entertains very serious doubts of his own existence—at least we are sure that he could start objections to every proof that might be offered in the affirmative. Now, while we are advocates for receiving medical evidence with proper caution, and for guarding against hasty and sweeping conclusions, we are, on the other hand, convinced that pathology and therapeutics will not be advanced by this eternal spirit of cavil and skepticism which is pervading some of the rising generation of medical philosophers. As we have often before observed, mathematical demonstration and logical precision are not to be expected, where the laws of life and organization are concerned. We must, therefore, be often contented with probability instead of certainty—with conjecture, (founded on such evidence as we can collect) instead of proof. And yet we see these ultra-skeptics sometimes grounding *their* dogmas on very insubstantial facts. Who would expect such a case as the following gravely presented to men of experience at the bed-side, as a proof that the good effects of blood-letting in apoplexy are greatly overrated?

"A gentleman of a full habit, between fifty and sixty years of age, had apoplexy after dinner; he was bled, and recovered his speech in a few hours, but had lost the use of one side; his pulse was a hundred and twenty. He was bled the same day from the arm, and fifty ounces of blood were taken from the temporal artery: he was bled again the next day, and cupped in the evening. During the whole of this time, from the recovery of his speech, he recognised his friends, and talked with very little incoherence. The bleeding had chiefly for its object the reduction of the pulse: in this intention it failed totally. He lost about a hundred and thirty ounces of blood in the first two days, and on the third he died. This patient I saw only by accident, or from locality, once or twice." 230.

Here we have evidence that bleeding *relieved* the symptoms, and roused the patient from insensibility to a recognizance of his friends, and to coherence of speech. No dissection is given; but little doubt can be entertained that irreparable mischief was produced in the brain by the extravasation of blood, which would there have been found.

We do not contend, indeed, that bleeding will cure disease in the vessels or disorganization in the structure of the brain —circumstances which often lead to apoplexy. But we contend that when the effusion or the congestion actually takes place, we have no remedy equal to blood-letting in obviating the effects of such extravasation or turgescence, which we maintain to be the *immediate* cause of the apoplectic symptoms.

We agree with our author in censuring the too frequent detraction of blood from the system as a preventive or cure of those determinations which we see take place towards particular organs. In such cases we would only bleed to obviate urgent symptoms, and trust to spare diet and revulsive irritations for the rest.

Our author considers epilepsy as nearly allied to apoplexy —and that it may, in general, be prevented by occasional bleeding and great temperance in diet. But if the disposition be accompanied by symptoms of chronic affection of the head, these symptoms will not be mitigated, but often increased, by a course of depletion instituted for their cure.

"Chorea, which in its pathology is probably allied to epilepsy, I have no reason to think much benefited by blood-letting. In the few cases which have occurred to me of this disease, some of which were severe ones, it has yielded to purgatives in about three weeks. The purgatives were chiefly combined ones of calomel, aloes, scammony, salts, senna, jalap, and rhubarb, given so as to procure three, four, or half a dozen stools every day: the stools have commonly assumed a healthy appearance towards the end of the above period, and the spasmodic action of the muscles has quickly ceased." 245.

Dr. Pring remarks that bleeding, in nervous disorders of the head, is sometimes indispensable as a measure of relief; but if frequently repeated, that the irritability of the heart is generally increased, as well as the local affection of the head. Patients of this description, he avers, enjoy the best health when they are brought to bear a full diet.

"The most common symptoms of nervous disorder of the head are pain, throbbing, sense of tightness across the forehead, rather white, but moist tongue, and the pulse, during an exacerbation, between ninety and a hundred; at other times, perhaps, between seventy and eighty. What the precise seat of the pain might be is, in many of these cases, doubtful. I have often thought it to be in the scalp, from the great soreness felt in this part after the pain has ceased; and also from the circumstance, that a handkerchief bound for half an hour so tightly round the head, as to intercept, or diminish the flow of blood to the scalp, will often afford a temporary cure. In what proportion of cases this seat may be supposed, or by what circumstances it may be distinguished, I do not at present

possess facts enough to determine. It is, however, to be remarked that, on the application of such pressure, a sense of bursting is felt in the vascular system of the head; each systole of the heart distends sensibly the vessels on the side of the pressure which is nearest the heart: the sense of distention commonly abates in five or ten minutes; and perhaps at the expiration of half an hour, on withdrawing the handkerchief, the head feels almost benumbed, and afterward hot, but without pain. The practice of preventing the circulation in the scalp in this way may, perhaps, not always be free from hazard, if the seat of the disorder is within the cranium." 247.

The following case exhibits a striking instance of what we might term a vacillation of the circulation, or, perhaps more properly, an oscillatory disposition to vascular excitement.

"A man of rather a full habit, and pale complexion, about forty years of age, by trade a baker, was attacked by violent pain in the head. He was bled repeatedly from the arm, from the temporal artery, by cupping, by leeches, took purgatives, was blistered, &c. This treatment, which was continued five or six weeks, scarcely produced any mitigation of the symptoms: in the course of it, and towards the end of the above period, he had a copious spitting of blood, which was sometimes frothy, was coughed up, and evidently proceeded from the lungs. As soon as this hemorrhage occurred, the head, which had not been relieved in any degree by previous blood-letting, continued up to this period, became perfectly free from pain. The expectoration of blood continued a few days; it ceased; and the pain returned in the head with unabated violence. For some weeks afterward, the seats of affection alternated with almost perfect regularity; one day, pain in the head; the next, hæmoptysis. The disorder of the head eventually prevailed; the hemorrhage from the lungs ceased; the man became mad; he was sent to a lunatic asylum, and died of apoplexy. This case, in connexion with some preceding ones, shows forcibly how inadequate blood-letting is for the prevention of disease, of which determination of blood is even a conspicuous sign, unless it has a curative relation with the state of disease, upon which the symptom of preternatural determination depends." 253.

In hæmoptysis our author has had reason to think that saline purgatives, with sometimes calomel, nitre, ipecacuan, &c. have been more effectual than repeated bleedings.

"The pathology of hæmoptysis furnishes two important practical distinctions, namely hæmoptysis with, and without buffed blood. If blood, taken from the arm, in cases of hæmoptysis, is buffed, the local disease tends to rapid disorganization; and unless arrested by treatment, terminates speedily in consumption. If, in such cases, the blood is not buffed, there is no immediate danger of consumption; the only danger is from hemorrhage: and this danger is not trifling. The most inconsiderable spitting of blood is always a symptom which requires great attention. If a small vessel of the

lungs is ruptured, it proves a disposition in the vessels to this effect; and there is no security, but that a large one may next give way." 256.

"In hæmoptysis with buffed blood the symptoms cannot be too rapidly subdued by antiphlogistic means. Bleedings of sixteen or twenty ounces, calomel, active saline purgatives, full doses of nitre, squill, ipecacuanha, emetic tartar, &c. and a diet of cold gruel, tea, barley water, &c. should be employed in the beginning, together with perfect repose. If the case becomes chronic, small bleedings, as a collateral treatment, are advantageous, together with nitre, and constant purging by Epsom salts: I have ample reason for thinking the repetition of large bleedings prejudicial; and a treatment, in which blood-letting is made the only remedy, altogether inadequate. I have known all the symptoms cease, in these cases, and the blood has no longer exhibited fibrine, when the calomel, which was given in doses of three grains every night, followed by salts and senna the next morning, has affected the gums. I have known also the coagulation of the crassamentum gradually weakened, and the exhibition of fibrine cease, under a treatment by a grain of acetate of lead three times a day, in combination with a full dose of squill, and a small one of digitalis; the saline purgatives, and occasionally calomel, have also been employed at the same time. 257.

In our review of Dr. Good's work, (page 817 of our last volume,) we stated that we had seen a few cases where the pulsations of the heart exceeded those at the wrist, being generally double the number; but that we never saw an instance where the arterial exceeded the cardiac pulsations in number—in short, that we considered the latter a physiological impossibility. The following case shows that Dr. Pring's experience is in accordance with our own.

"The patient was about forty years of age; he had suffered in the course of his life two or three attacks of acute rheumatism, which showed always a great disposition to metastasis, and his heart was more or less affected in each attack. About two years since he had acute rheumatism, affecting chiefly the arms and legs; during this attack he was under my care. In the course of the disease the swelling of the hands sometimes ceased suddenly, and was succeeded by violent pain in the heart, sense of weight on the chest, and of suffocation, with a quick and intermittent pulse. Towards the termination of the case, the stroke of the heart was precisely double that of the pulse at the wrist. When the pulse beat fifty, the heart beat exactly a hundred strokes in a minute: when the heart beat eighty, the pulse was forty. The case was chronic, and my examinations frequent, and the result was always the same: the pulse of the heart was invariably, to a single stroke, double that at the wrist; and there was in general no very perceptible difference in point of strength between the beats of the heart; or if, at any time, a difference could be felt, it appeared as if the second stroke was rather the weaker of the two." 266.

With Dr. Pring's attempt at explaining this phenomenon, we shall not trouble the reader, as it is far from satisfactory.

We agree with our author that hydrothorax and hydropericardium are less successfully treated by bleeding than by purgatives—and that the effects of the latter in relieving patients from the pressure of fluid on the heart, lungs, and diaphragm, are often surprising.

"A woman, about sixty years of age, had hydrothorax, connected with disease of the heart, for many months. When I first saw her, she was sitting upright in her bed; her breathing was exceedingly laboured, her pulse intermittent, and only thirty-six in a minute. Ascites had of late been added to hydrothorax, and I found her legs tightly bandaged to prevent their swelling. The woman appeared almost in articulo mortis: the bandages were of course removed. I covered her chest with a blister, and gave her a full dose of calomel, squill, aloes, and elaterium, followed by a black draught with jalap. The alvine evacuations were, in consequence, very copious; the kidneys afterward acted inordinately, and she passed many pints of almost limpid urine every day. In less than a week, under repetitions of the same medicines, she was totally free from all her symptoms. The plan was continued in less degree, by way of prevention; but she was well enough to walk out, and became tired of discipline." 269.

She was two or three times relieved in this way afterward, but ultimately died comatose, having refused to submit to medical discipline. We have met with several cases exemplifying the above.

Idiopathic dropsy, in our author's experience, has generally yielded to purgatives, as of calomel, elaterium, gamboge, with large doses of squills and small ones of digitalis. "It most commonly happens that some degree of ptyalism is produced by the calomel before the disease is completely removed."

"The employment of mercury in dropsy has been an empirical practice; but its powers deserve all the attention which observation and science can bestow. I believe mercury will very frequently cure the disease, if this remedy is carried to a great extent. But it is often difficult in this, and other local diseases of a fixed character, to make mercury produce its usual effects; and upon its producing salivation, I have reason to think its curative operation depends. Not that the mere salivation is of any use; but it is an index of a more general affection; and I have never met with a case of dropsy, unaccompanied by disease of the heart, which did not cease under a salivation, continued for a sufficient length of time. It has been proposed to limit the use of mercury to those cases of dropsy, only which are not inflammatory. I have used it with the most perfect success, where the blood has been buffed; and I have certainly found a treatment by bleeding fail, although the blood always ex-

hibited a surface of fibrine. But my experience on this point has not been sufficiently extensive to decide so important a practical question." 271.

As dropsy is generally symptomatic of disease in the heart or the liver, it is reasonable to suppose that, in the latter case, mercury is the only medicine that is likely to prove efficacious. Dr. Pring properly observes that the cure of symptomatic dropsy, as connected with liver disease, is no trifling illustration of the powers of medicine—while it may be observed that the medicines which will accomplish this end are of no very gentle kind. The following case, besides exemplifying the foregoing remark, is very instructive in itself, and is one of those which often tend to establish a man's reputation even at an early period of his professional career.

"A woman, in other respects of a good constitution, between forty and fifty years of age, suffered occasionally from chronic inflammation of the liver. This viscus was, at these times, enlarged, indurated, and painful, on pressure: she had three or four of these attacks in the course of two years, and they yielded to the ordinary treatment in a fortnight, three, or six weeks; and towards their termination, the stools were sometimes copious, and almost black. She was subject to more frequent attacks of bilious vomiting and purging, which commonly ceased after one or two doses of calomel, followed by a cathartic draught. During the above period she suffered only occasional inconvenience, and very little confinement from her complaint. The liver again became enlarged and indurated; the disease did not, at this time, yield to ordinary remedies: she was purged, bled, leeched, cupped, and blistered, repeatedly; the tumour in the side continued to increase, her legs became anasarcous, and fluctuation was perceptible in the abdomen. She took principally purgatives, and the topical treatment of the side consisted of local bleedings and blistering: she took small doses of calomel, as a grain, three times a day, and rubbed in mercurial ointment upon the side. This plan was continued nearly three weeks, and the quantity of calomel, during this time, was increased to six or eight grains a day. The gums were not, however, in any degree affected; the enlargement of the liver continued to increase; the anasarca of the legs extended from the feet to the hips, or to the sides of the abdomen: her hands and arms were also anasarcous in a slighter degree; and her respiration was difficult, owing in part to the tumour of the liver, and in part to fluid in the abdomen. Her case was considered a hopeless one; and from experience of the inefficacy of the remedies hitherto employed, it was abandoned, except by myself. I told her there was still a chance left for her; that I was not very sanguine of the result; but that I would give her this chance if she chose to submit to the discipline. Her death seemed otherwise inevitable, and she therefore consented.

"As the former doses of mercury had not produced the effect

upon which I believed the curative action of this remedy to depend, I determined to produce this effect at all events; and as there appeared no time to be lost, I gave her ten grains of calomel every night and morning, and directed her to proceed with the mercurial frictions. She continued these doses about a week; the stools, consisting of very depraved secretions, became copious without any other purgative, and her gums were swollen and tender. I then gave her eight grains of calomel, with squill every night and morning, and she continued these doses about a fortnight. She occasionally took also a black draught, with half a dram of jalap in it. Her gums, during this fortnight, continued much swollen; the palate also was thickened; there was a little increase of salivary secretion, but no ulceration of the gums or tongue. She had every day copious stools, consisting of vitiated secretions of apparently every variety, black, green, &c. with a considerable proportion of mucus, and sometimes a very little blood. The tumour in the side had nearly disappeared; she could lie flat on her bed; there was very little enlargement of the abdomen, but the legs continued anasarcous. She afterward took every night pills, with five grains of calomel, three or four of gamboge, half a grain of elaterium, and three grains of aloes, followed every morning by a black draught, with half a dram of jalap in it. This plan was scarcely interrupted for three weeks; and when it was, it was only to omit the purgative, and resume, for perhaps a couple of days, the ten grain doses of calomel, when the symptoms under the purgative showed a disposition to increase. Her pulse throughout this course was, upon an average, between 90 and 100. She also occasionally took an emetic; and sometimes, by way of varying the purgative, a dose of spirit of turpentine, with castor oil. The evacuations from the bowels were still exceedingly copious, and consisted chiefly of the secretions before described. Her diet was of the most nutritious quality. As a compensation for this severe discipline, I allowed her to gratify her palate by eating and drinking as her fancy dictated, without any restraint. My real motive for this indulgence was one founded in an experience of the advantage, in many chronic cases, of sustaining with one hand, while we are pulling down with the other. The curative design is to subvert a state of disease: and if the disease is a formidable one, and this design is really to be accomplished by medicines, without being indebted to Nature, (who is in such instances driven towards our purposes very much against her will,) the means by which this can be accomplished must be of no trifling powers. This discipline was continued about two months, with but little interruption; at the end of which time, as no vestige remained of her complaints, it was presumed that the remedies had subverted the diseased, and were followed by the resumption of a healthy state of the functions. I did not, however, choose to trust over much to this presumption, knowing that it is one thing to cure symptoms, and another to subvert the tendency by which they were produced, and may be produced again, when the influence of the remedy has passed. She therefore continued to take her pills, with calomel,

gamboge, elaterium, &c. together with the draught, containing half a dram of jalap, almost every night and morning, for two or three weeks longer: these doses were then given every second day, every third day, and irregularly three times a week, and twice and once a week for some time afterward." 276.

This patient's recovery was perfect, and does great credit to Dr. Pring.

Our author hazards some ingenious speculations on the remarkable influence which mercury exerts on the hepatic system in particular, and on the other structures of the body in general; and as there is some novelty, and, we apprehend, truth, in these speculations, we are tempted to give the passage in his own words.

"I do not remember to have ever seen the principle defined on which mercury acts so beneficially in diseases of the liver. If absorbent glands are enlarged, the mercurial diathesis frequently makes them suppurate; but if this does not happen before salivation takes place, or if salivation succeeds to the suppuration of such glands, as those of the axilla, for instance; in the former case, the revulsion made under ptyalism to the secerning glandular system will be followed by a reduction, or perhaps disappearance of those glands which were enlarged; and in the latter, the same mode of operation will frequently produce the absorption of matter which was formed under mercurial influence, but previously to the ptyalism. The mercurial diathesis would also, in many cases, excite suppuration of the *liver*, when this was diseased, as of other structures; but the determination to this gland, produced by mercury, instead of exciting suppuration, forces it upon an active secretion, by which its state of congestion is relieved, as congestion or determination is, in other instances, by a spontaneous, or other ending, in secretion. A quantity of mercury, therefore, which, not producing salivation, would in other structures produce or hasten disorganization, in the liver produces only a less degree of the salutary influence which this medicine exerts upon this viscus when ptyalism, or a general increase of glandular secretion, is excited by it; and if the fixed nature of the disease is a cause why mercury does not produce ptyalism, (as it is in some instances, for the reason that the particular determination of mercury is rather to a previous seat of disease, than to the glandular system,) the local disease is not, in the case of the liver, as in other structures, increased by this particular determination, but still finds, at once a security against the prejudicial operation of mercury, and a vis medicatrix, under its influence, in the secerning function of the gland. Thus, though in diseases of other structures mercury may be prejudicial if it does not produce salivation, although it may cure if it does, every grade of mercurial influence *on the liver* is likely to be advantageous in its diseases; and mercury does not in this, as in other seats, produce opposite effects in different stages of its employment." 278.

The fifth chapter of the work before us is entitled—"Origin

of Disease in the Abdominal Viscera.' Dr. Pring begins it by observing that it is a prevalent doctrine "that disorder of the stomach or liver is the cause of almost every other local disease." This doctrine certainly is *prevalent* to a certain extent; but surely there are few who adopt it in the latitude stated by our author, what observant practitioner can fail to perceive that the gastric and hepatic functions are daily and hourly disturbed by disorder of other parts, and consequently are only sympathetically or secondarily affected? The long train of passions act on the stomach and liver through the medium of the brain and nerves. Suppressed perspiration will disorder the stomach and liver, the skin being the organ primarily impressed with derangement of function, and so on. In fact, there is no part of the body in which disorder may not originate, and so far from its being occasioned by, may be itself the cause of, the disordered state of the digestive organs. At the same time, it is highly probable that the chylopoietic viscera are more frequently disordered, *primarily* or *secondarily*, than any other class of internal organs.

We agree with Dr. Pring in thinking that the greater frequency of gastric and hepatic complaints now than two or three hundred years ago, is far more owing to disturbed function of the brain (which organ is infinitely more exercised now than formerly) than to any depraved or artificial habits in respect to food. Education is pushed farther—refinement is more general—sensibility is more acute than in days of yore. The intellectual and animal functions are improved at the expense of the organic—and hence the great source of chylopoietic derangements.

Dr. Pring takes some pains to classify or arrange the disorders of the digestive apparatus, and exhibit their true relations in disease. He divides them into two classes—the exclusive and the related. The last class is subdivided into a great many orders or genera. Of the exclusive disorders of the digestive organs, our author has not seen more than three or four cases, where they appeared unconnected with other disease. On the other hand, related disorders of the digestive apparatus are very common, as *first*, derangement in the chylopoietic organs producing disease elsewhere by simple extension, in which class Dr. Pring includes some forms of chronic fever, erysipelas, and certain ulcers. *Secondly*, disorder originating in the digestive organs, and ceasing under the occurrence of disease in another seat—cases, however, which, he thinks, are not very common. Thus he has known consumption preceded by severe chronic dyspepsia, which last ceased in the course of the former; and so has he seen chronic dyspepsia cease under a cutaneous eruption.

"3. Disorders of the digestive organs originating elsewhere, and exemplifying simple extension of disease, form a very numerous class. To this division belong perhaps the largest proportion of those cases, in which nervous disorder is in connexion with disorder of the digestive organs. This combination of disorder generally originates in habits whose primary relation is with the mind, or the passions; such as habits of business, of study, or of amusements of the anxious and feverish sorts, as those incident to a life of dissipation, the taste for which is sometimes gratified without frequent gastric debauches. If a girl is in love, the disturbance of the brain, by the excitement of a passion, may give her a white tongue, loss of appetite, &c. perhaps also a vicarious determination to the head or chest, connected with irregular menstruation, producing hysteria, or even alienation of mind, or spitting of blood, and perhaps eventually consumption. Such determination to the head, &c. with various shades of modification, are the more likely to occur, if the progress of the amour is marked by systematic opposition, cross accidents, regrets, anxieties; by the alternation of fears, hopes, mortifications, revived expectations, joy, disappointment, &c. These forms of disorder are generally those of simple extension: the function of the brain is first disturbed, the stomach becomes disordered in consequence; and the disturbed state of the brain, expressing itself with more or less severity in the several instances, continues without mitigation from the secondary affection of the stomach, by which it is more frequently increased than diminished." 297.

4. Dr. Pring observes that disorders of the digestive organs, originating elsewhere, and holding a *curative* relation with the original seat, are of frequent occurrence. Thus, fevers abate on the supervention of diarrhœa—and more especially on the "appearance of stools," "which prove that the *state of disease* is assumed by the abdominal organs of secretion." We cannot perceive the force of Dr. Pring's reasoning, when he concludes that the appearance of feculent matter or stools indicate the transference of disease to the digestive organs. We should have come to a diametrically opposite conclusion—namely, that while the motions were watery and diarrhœal, there was really disorder in the digestive apparatus, but that when the motions became feculent, it indicated a return of *healthy function* in those same organs. Doctors, however, will differ in opinion. There are many other cases, indeed, where, under febrile states of the system, a discharge of dark, fetid, and unnatural secretions takes place from the bowels, with reduction of the pyrexia. Even here we can hardly view the diarrhœa as a state of disease in the chylopoietic viscera, but rather a salutary increase of natural function to remove disease from the system.

Our author properly remarks that secondary disorder of the digestive organs, instead of proving curative, often re-acts

on, or increases, the primary affection. This state of the digestive apparatus will maintain disorder of the head, and nervous disorder, when the subject has been long removed from those habits or influences which first disturbed the function of the brain, and through this medium the stomach. Thus, also, local injuries first disorder the stomach, and this state of the stomach maintains a disordered state of constitution, in which the local injury participates. Dr. Pring makes some curious observations on dyspepsia, some of which we shall introduce to our readers.

"The most prevalent form of dyspepsia which has occurred in my experience, is that denoted by furred tongue; brackish, or bitter taste in the mouth; irregular appetite, which is sometimes good, but more frequently otherwise; flatulence, torpid bowels; nervous irritability; disturbed sleep, which is sometimes morbidly profound; general uneasy sensation, perhaps with or without pain in the stomach or bowels; occasional depression of spirits, frequent languor; sudden changes of temperature of the skin; cold feet; and most commonly, a tendency to disorder of the head. The degrees and combinations of these symptoms afford the principal diversities which I have observed in dyspepsia." 301.

The plan of restraining the patient from all those kinds of food which are supposed to be prejudicial in this complaint, has never been known to cure a single person in our author's experience. He argues that the stomach can often digest with ease things which physician and patient have thus determined *a priori* it ought not to digest at all. And again, he avers, that, by not keeping the digestive function adequately exercised, it is apt to become capricious, and either loses the inclination or power to perform its duty. And thirdly, that, as the bile is probably the natural stimulus to the bowels, he has reason to think that the food is not a little concerned in enforcing their action—that people may have griping pains, diarrhœa, tenesmus, &c. with white stools, where, of course, there is paucity of bile—that if persons eat sparingly, the bowels will not act regularly for want of adequate stimulus from this source—that if they eat abundantly, the stimulus of the ingesta will, to a great extent, contribute to, or produce regularity of the alvine evacuations.

"I have known a change of diet, from a starving one to one of repletion, followed by regularity of the bowels, so that under the latter regimen the subject did not take an aperient medicine for two years: and under the former, he scarcely ever had an evacuation which was not procured by medicine. I knew a young man, twenty-one years of age, who had dyspepsia; he was, however, in other respects, healthy and vigorous; he had a soft pulse, commonly of sixty, and was able to walk ten or fifteen miles in a day without

fatigue. His bowels were very torpid, and he was highly nervous. He had been directed to eat only food of a certain quality, and of this food, which was weighed, to take only a few ounces; to drink water, and to procure stools by large doses of the compound gamboge pill. I recommended him to leave off his pills, eat as much as he could, and of what he liked, and to drink a quart of strong beer every day. He was persuaded to enter, with great timidity, upon this plan; and in three or four days, his trouble was not that his bowels would not act, but that they acted too much, or too frequently. He was frightened at this effect, and returned to his old regimen, which he persevered in; and in a few months he died of an atrophy: my construction of which event was, that he was starved to death; notwithstanding he possessed a good appetite, and the means of procuring as much food as he liked. It is to be remarked that there was not, in this case, any evidence of diseased mesenteric glands." 303.

Although the above doctrines are rather heterodox in medicine, yet we do not deem them entirely fanciful or always dangerous. We think that the physician who recommended the young man such Pythagorean fare and drastic purgatives, was full as wrong as Dr. Pring, who changed the system to alderman's fare and porter. It appears plain to us that the patient's digestive organs were not equal to the task assigned them by Dr. Pring; and that the plenitude of food and porter acted as a purgative, and hurried the ingesta through the bowels. Moreover we imagine there must have been some serious radical vice in the constitution of a patient who died of atrophy, in a few months, even on the slender fare which was first prescribed for him. Our rule is, to let the dyspeptic patient (where there is no other disease) eat moderately of any food that agrees best with his stomach, limiting the quantity, when sense of fulness after eating, eructations, flatulence, or uneasy sensations obtain. Whether this or the following plan be the more prudent, we leave to the judgment of the reader.—

"Although, in dyspepsia, the bowels may not act with regularity under any plan of diet, I believe their action will approach nearest to regularity under the regimen of repletion, that is, of eating and drinking abundantly: this plan will produce occasional inconvenience; but it is attended, so far as my observation goes, with a better general state of health than when the opposite one is adopted. It will every now and then be productive of an exacerbation of the symptoms; and then a purgative, or a short course of purgatives, with a change of diet, will at once be a remedy to the exacerbation, and have the effect of producing afterward a comparative freedom from the complaint, and an improved state of health. This improvement will, perhaps, last many months; during which time the less the patient thinks about his stomach

and bowels the better. Nature might take the matter into her own hands: and if the bowels are neglected, she will, perhaps, give the patient a slight attack of cholera, which will be followed by all the improvement which usually succeeds to a trifling crisis of a disorder." 304.

In our author's experience, blue pill, in doses of four or five grains every night, has appeared to increase the symptoms of dyspepsia, and afterward when the medicine is discontinued, the symptoms become improved.

"In lesser doses, as of one or two grains every night, continued for a longer time, it has produced no perceptible increase of the symptoms, and is often followed by a more healthy performance of the abdominal functions; which improvement, as the change induced in the action of these organs is gradual, and sometimes complete, is occasionally permanent; or at least continues for some months. By this medicine, in very small doses, the symptoms may sometimes be made to cease under its use; and the disposition which produces them may also be subverted, if the remedy is continued for a sufficient length of time. The former effect, even that of diminishing symptoms, is, however, by no means regular, from blue pill, in any doses: and the latter, that of indisposing organs to a recurrence of the symptoms, is a felicity of treatment which we can seldom boast. Mercury in all its forms is generally prejudicial in the dyspepsia, accompanied by excessive nervous irritability, without evidence of disordered biliary secretion; but even in such cases, an improved state of health, at a more or less distant interval, will generally succeed to its discontinuance, provided it has not been carried to an injurious excess." 307.

He has known a combination of the sulphate of zinc (in doses of a grain twice or thrice a day) with rhubarb and extract of gentian useful in dyspepsia. According to his observations, dyspepsia is sometimes increased, sometimes diminished—or sometimes improved in one respect and deteriorated in another, by a course of purgatives. But when the inconveniences attending purgation have passed away, then an improved state of the digestive organs succeeds. Purgative medicines he has not found successful in mere disorder of the stomach only, with nervous irritability or headachs; "but they are eminently successful if the disorder of the stomach is accompanied with disordered function of the liver, or chronic pain in the side or stomach."

"I have known a fixed pain in the stomach which had existed more than twenty years, and which, for several weeks in each year, suffered one or two exacerbations every day, which terminated in vomiting, perfectly cured, and never afterward returned, by a course of efficient purgatives, continued for six weeks. As a treatment for affections of this kind, I have found a pill, contain-

ing a grain and a half of aloes, one grain of blue pill, and one of ipecacuanha, taken three times a day, a good combination." 309.

Dr. Pring remarks that, in the treatment of any form of chronic disease, whether in the digestive organs, or elsewhere, purgatives frequently increase the symptoms at first—an effect that is rather desirable than otherwise, "inasmuch as it proves that the remedy *has a relation with the disease*," and gives some ground for a hope that a medicine which thus shows itself capable of a præternatural influence on a state of disease, may be capable also of subverting this state, if continued for a sufficient length of time. Dr. Pring has known the symptoms of severe dyspepsia totally cease under the influence of a caustic issue employed for the cure of a local disease. He has also seen benefit derived from the application of adhesive plaster containing six or eight grains of emetic tartar over the region of the stomach. Our Dermalogical writers will not relish the following passage. Without going the whole length which Dr. P. goes, we sincerely believe there is much truth in what he says.—

"The connexion between dyspepsia and diseases of the skin has been before remarked. Those who have written on diseases of the skin, with a great appearance of learning and connoisseurship, have done little more than multiply unnecessary and trivial distinctions, and propose a jargon of barbarous terms, which none but persons of very corrupt taste will take the trouble to remember. I do not, in the works alluded to, remember to have met with any thing like a principle of the pathology or treatment of these diseases. In this place it is necessary only to remark that, as we have seen in our analysis of the relations of disorder of the digestive organs, diseases of the skin are variously connected with such disorder; so a long continued treatment, by small doses of blue pill, perhaps with colocynth, or aloes and ipecacuanha, will cure many of them, without recurring to the more powerful agency of calomel, corrosive sublimate, or arsenic: and, as a local application, hartshorn and water, in the proportion of a drachm of the former to an ounce of the latter, is almost a specific in many chronic diseases of the skin, attended either with lymphatic or pustular eruptions, whether confined to one spot, or extending over a whole limb. The effect of this stimulus is to exchange a peculiar for a common inflammation; and, I presume, by the same mode, liquor ammoniæ, liquor potassæ, and turpentine will cure tinea capitis: the proportion of hartshorn is to be regulated by the irritability of the surface, and either applied constantly or occasionally, according to circumstances. This remedy has long been employed in erysipelas, and I have used it with great success in almost every case of disease of the skin described above, which has fallen under this treatment: if continued after the specific character of the disease seems to be subdued, it appears to irritate and produce troublesome exfoliations of the cuticle." 313.

Our author believes that there are very few diseases of the skin that may not be cured—at least he has met with very few. The most effectual of the external applications are sulphur, tar, the different forms of mercurial ointment, hartshorn, zinc, acetate of lead, spirit of turpentine, with oil as a liniment. All these remedies, Dr. P. observes, tend obviously to produce what is called a new action. The internal ones, which chiefly act on the skin, are sulphur, arsenic, ammonia. "These produce heat of skin, temporary fever, and thus substitute an artificial for a natural diseased action." The remedies which cure cutaneous affections, "by their action or related seats," or, in plain terms, by sympathy, are purgatives, emetic tartar, calomel, oxymuriate of mercury, &c.

Of all the modes of obviating habitual costiveness, our author avers, that the most effectual is a residence on the Continent, especially France, where the mode of preparing food is different from that pursued in this country, and where the wines in ordinary use have a tendency to keep the bowels regular. The next best method (as a residence in France is not quite convenient for every one) is a dinner pill composed of from two to six grains of extr. col. comp. It is better mixed with the food than in any other way.

Our author is no advocate for what is called soliciting Nature, by endeavouring to have an evacuation every day at a particular hour. We do not think that any force should be used. But by making a gentle attempt at the accustomed hour we shall often succeed—whereas, by going past the hour, the nisus, as it were, goes off, and in torpid states of the bowels, there will be no return of it till the next day.

"The use of the rectum bougie sometimes disposes to regularity of alvine evacuations. This it does, merely by the stimulus of a foreign body in the rectum, acting as a suppository; an effect which would frequently be accomplished by the presence of fæces, if they were allowed to accumulate." 317.

Dr. Pring seems to ridicule the precept of adhering to simplicity of food. "For my own part," says he, "this seems a very trivial matter; for it may be presumed that if fish occupies the inferior, beef the middle part of the stomach, and poultry or game its superior portion, these several articles would be as perfectly digested by the surfaces of the stomach to which they are opposed, as if either sort of food occupied the whole of this viscus." This, we think, is loose reasoning. Dr. Pring seems to forget that by making a dinner of three different kinds of food considerably more *in quantity* will be consumed than if the meal were confined to a single dish—on the well-known principle that *variety* stimulates the appetite beyond its natural range. This we con-

sider to be the main evil. But we have great reason to believe that when articles of different degrees of digestibility become mixed in the stomach, they may occasion some inconvenience to that organ, while acting on this compound mass.

And here we must bring our analysis to a conclusion, as the succeeding chapters in Dr. Pring's work are either so abstruse in themselves, or rendered so by the nature of the subjects (principally causation and the occult relation of diseases) that we have despaired of conveying any satisfactory or intelligible information to our readers. We have, therefore, dwelt longer on the plainer and more practical portions of the work, referring those who are curious to a full perusal of the argumentative and doctrinal chapters. As far as we have gone, we think we have done justice to Dr. Pring, and we have no hesitation in bearing our feeble testimony to the genius and talents of our author. That he is not always equal, or even reasonable, is not very wonderful, considering the difficulty of the subject; but we venture to assert that the present work is by far the best which Dr. Pring has published, notwithstanding the extravagant praises that were lavished on a former production.

II.

An Inquiry into the Action of Mercury on the Living Body. By Joseph Swan, Member of the Royal College of Surgeons, and Surgeon to the Lincoln County Hospital. 8vo. sewed. pp. 30, London, 1822.

Mr. Swan believes that there is no active medicine, the employment of which is more general, or its operations less understood, than mercury. This may be true, for there are few, or perhaps no medicines of such extensive and varied influence on the human frame as mercury in its different preparations. What organ almost, in the body, is there, whose function may not be acted on by mercury, either alone or combined with some other medicine? The stomach, intestines, liver, pancreas, and in fact, all the glands of the body, come under its influence when introduced either by the mouth or skin It is to be acknowledged, however, that when injudiciously employed, and in some constitutions under the most cautious management, changes are produced inimical to

future health—and these changes are deserving of the most serious investigation.

Our author seems to be in doubt whether the operation of mercury on the human frame is to be accounted for on the principle of absorption and accumulation in the body, or by an increased action produced in some other way than by absorption. The peculiar taste produced in the mouth, and the change in silver worn about the body seem to favour the doctrine of absorption; but these circumstances, Mr. Swan thinks, are fallacious, as he has known the mercurial taste exist where no mercury had been used—and he seems to doubt the occurrence of the change in silver when the mineral has only been used by the mouth.

"When mercury is taken into the body in only a small quantity, it proves a gentle stimulant to the secretory and absorbent systems, and causes the functions of them and the viscera to be performed in a more perfect manner, and no disturbance of the system is the consequence. But when it is taken in continued doses, it excites salivation or an increase of other discharges, as urine; and not only does this, but likewise frequently produces a furred tongue and much irritative fever. In some, the nervous system is much affected, debility and lowness of spirits are produced, and even after the mercury is discontinued, the system is very long in recovering." 7.

Mr. Swan conceives that mercury acts upon the villous coat of the stomach and intestines by producing a peculiar irritation, "for it is not the quantity used which excites salivation and the usual consequences of mercury, but the irritating form in which it is administered." When, therefore, he observes the effects produced by mercury, and finds that it cannot be detected in the blood or in any of the secretions, he cannot help supposing that it acts on the nervous system, and most particularly on that part of it formed by the grand sympathetic nerve. This he thinks, is proved by the following case.

"On dissecting the grand sympathetic nerve, I found its ganglia and branches larger than I ever observed them before; I also observed an increased size of the par vagum. I could not satisfy myself the other nerves were enlarged. The subject had an encysted tumour in the liver about the size of a pigeon's egg, and the substance of this viscus when divided was streaked with red, in a peculiar manner, which appearance seemed to me the effect of inflammation.

"I supposed the system had been under the influence of mercury, for both sides of the face were much swollen; the salivary and absorbent glands were much enlarged; the teeth were loose, and there was a separation of the gums.

"On opening the spinal canal, I found much glary fluid on the

surface of the dura mater; and I never observed its existence in the same degree in any other subject. The body was emaciated, but as far as I could judge, death had taken place rather suddenly, for the emaciation was not in the greatest degree. I did not observe disease in any of the other viscera. The brain was firm and sound, but the medulla spinalis was very soft.

"On finding this state of the grand sympathetic nerve, and par vagum, I was led to suppose, that it was, as I have before stated, the effect of mercury; and it being allowed that this medicine cannot be traced either in the blood or any of the secretions, and that its effects increase in proportion to the quantity used, if it be not accumulated in the system, as I do not conceive to be the fact, we must necessarily imagine that a change is produced in some very important part by it: and this change, from considering the symptoms produced by mercury, I cannot help concluding is in the nervous system, and that the enlargement of the nerves in this instance was the effect of the mercury. I could not learn the history of the case." 16.

As Mr. Swan must have been aware that little could be concluded from an insulated case of this kind, he instituted some experiments on dogs, with the view of ascertaining whether the nerves really became affected by the use of mercury. These experiments, however, were only two in number, and to us appear far from satisfactory. We shall give the results. The dogs took calomel and sometimes opium, generally night and morning, in moderate doses (from two to five grains) till ulcers were produced in the mouth, till great constitutional derangement took place—and, in short, till death was occasioned by the mineral. In the first experiment, beside some ulcers in the mouth, and loose teeth, there were reddish spots on the villous coat of the small intestines, and marks of inflammation in the mucous membrane of the large. "The ganglia of the grand sympathetic nerves were very vascular, and likewise the par vagum; and all the nerves were more vascular than in a state of health. On one of the sciatic nerves there was a spot of ecchymosis." In the second experiment the appearances were nearly the same. The par vagum was inflamed, especially at its superior part, and again where it communicates with the inferior cervical ganglion. All the ganglia of the great sympathetic nerves were inflamed, and likewise portions of the nerves themselves. The sciatic nerves were also more vascular than usual, especially near the ischiatic notch. Mr. Swan examined the ganglia of several of the spinal nerves 50 or 60 hours after death, and still found them so full of vessels as to leave no doubt in his mind that they had partaken of the inflammatory action.

"The results of these experiments lead me to believe that mer-

cury produces first an irritation in the grand sympathetic nerve, communicated to it from the termination of its branches on the villous coat of the intestines; and if its use is persevered in, inflammation is soon the consequence; whilst, at the same time, the same irritation is communicated to the other nerves. But it may be necessary to inquire why the nerves of the limbs are not found enlarged always, as well as those of the grand sympathetic nerve. I conceive that mercury acts more decidedly on the grand sympathetic than on any of the other nerves, and that it is only after a length of time that these other nerves become enlarged. In the second experiment, the par vagum, the nerves forming the axillary plexus, and those of the sciatic nerve were very red from vessels near their communication with the grand sympathetic nerves, and the diminished vascularity was very evident the further they were removed from these. I therefore think it probable that the enlargement of the grand sympathetic nerve in the dissection I have mentioned, without any enlargement of the other nerves except the par vagum, is what usually takes place, and that the other nerves become enlarged only where the use of mercury is very long continued. The increased vascularity of all the nerves will, I think, account for the pains of the limbs and frequently for their weakness. Will not the decided effect produced on the par vagum, likewise account particularly for the aggravation or the coming on of consumptive symptoms where there was a predisposition to that disease, by a long course of mercury, and explain why a few doses of mercury, given where the symptoms are those of consumption, and depending only on a disordered state of the chylopoietic viscera, will remove such disorder?

"If mercury affects the grand sympathetic nerves, it may then fairly be asked, how its influence is communicated when rubbed on the skin? I conceive it probable that it may irritate the nerves of this part, and that this irritation may spread from its nerves to the rest of the nervous system; but whether the influence of mercury is communicated by the nerves of the skin to the other parts of the system, or in any other manner, I am firmly persuaded that it is exercised almost entirely on the nervous system." 25.

We agree with our author, that, as mercury appears to affect the nervous system (a fact which has long been known without experiments on the subject) it is necessary not to be profuse in its exhibition in ordinary cases. He observes that—

"It is generally believed that when the stools are black, or have not the natural appearance, mercury will so alter the secretions of the viscera as to produce a healthy appearance of them; and though it has this desired effect when properly administered, yet it sometimes happens that, instead of the secretions becoming better, they are more and more discoloured, and in such cases it is supposed necessary to push on its use with redoubled diligence; but as, in some of these instances, the parts are already too irritable, the more this state is increased by the mercury, the more discoloured the evacuation-

become, whilst after some time, when it has been discontinued, and quieting medicines used, the irritation will cease, and the secretions become natural.

"When mercury is given for the cure of an ulcer which depends upon an improper state of the digestive organs, a few doses will change the secretions of these organs to a healthy state, and the sore will immediately begin to heal; but if the cure depends on a change to be produced on the ulcer by the mercury, it must be effected either through the system or some local application. If through the system, how is the change produced? Mercury is not in the system, but is applied to parts whose nerves are susceptible of its influence. Through these the whole nervous system is affected, and the change of action in the termination of the nerves produces a corresponding change in the minute arteries; as constitutions vary, so when this action is carried beyond a moderate degree in a weak or irritable one, the part is stimulated beyond its powers, and sloughing or death are produced." 27.

Our author further observes that, when for a supposed syphilitic ulcer mercury is given, it so changes the sore as to produce a healthy state. But if the mercury be continued longer (he should have said "too long") the ulcer becomes (he should have said "sometimes") irritable, and may frequently be cured by leaving off the medicine, and giving something to reduce irritability.

"When the ulcer has begun to heal, the restorative process often stops, or the ulcer spreads; the parts have become languid from the previous too great action, and then if mercury is given again, it again stimulates the nerves, and the parts again dispose for a time for healing; again perhaps they become too irritable and spread or do not mend, and then by leaving off mercury and giving quieting medicines the ulcer again begins to assume a healthier appearance; and this varied state continues to teaze the patient for a great length of time, till at last by the frequent use of mercury, the actions of the whole body become changed, and fresh symptoms show themselves, and in this manner I conceive diseases resembling syphilis are frequently produced." 28.

We have now given the sum and substance of the pamphlet, and we think that the insulated case in the human subject goes for little, while the experiments on the two dogs go for still less. The whole we imagine, only supports the rational opinion now pretty generally entertained, that the *use* of mercury is a great good in the practice of physic, while the abuse of it is a crying evil.

III.

Remarks on the Yellow Fever of the South and East Coasts of Spain; comprehending Observations made on the Spot, by actual Survey of Localities, and rigorous Examination of Fact, at original Sources of Information. By THOMAS O'HALLORAN, M.D. Member of the Medical Academies of Madrid and Barcelona. Octavo, pp. 208, with a large Plan of Barcelona; price 10s. 6d. boards. London, 1823.

THE human mind, like the human body, is always most alive to the strongest excitant—and at the moment when we now write, the scourge of war has superseded in interest the ravages of pestilence. How long will the beautiful valleys and populous cities of Mediterranean Spain continue to be desolated by the impious sword of man and the putrid breath of disease! Very long, we fear. While the human passions furnish incentives to the one, the physical elements around us will generate ample causes of the other.

The investigation of epidemic and endemic fevers has, for several years past, been carried on with such ardour and acrimony, that a kind of reaction or revulsion has now taken place in the public mind, and these inquiries are looked on with some degree of horror. It is not proper, however, especially in the Journalist, to give way to these temporary vacillations of taste or temper. What has been interesting once will be interesting again; and therefore it is his duty to place on record a faithful account of what passes in his day, for the benefit of posterity, if not for the gratification of the moment. But that taste must be fastidous, that mind contracted, that disposition selfish, which can turn a deaf ear or uninquisitive eye to the theatre, however far removed from his own vicinity, where fever annually sweeps thousands to the grave. The causes which first produce endemics and epidemics, and the laws by which they are afterward propagated, cannot be too much or too often examined—especially as they are yet involved in great obscurity. This is the paramount reason of our entering into the subject as often as it presents itself—but there are other reasons, though minor, which stimulate us to this task on the present occasion. The two individuals, our countrymen, who have lately investigated the fever of Spain, were actuated by the most disinterested zeal, and undertook the dangerous and laborious office at their own personal risk, and at their own private expense —Government having granted little else than *permission* for the hazardous enterprise. To Drs. Jackson and O'Halloran,

then, we affirm, the profession is under a debt, which ought to be repaid by at least an attentive perusal of their works. It is only by the zeal and intelligence of its individual members that the respectability of the profession itself can be sustained or promoted, and the examples of the two gentlemen in question deserve to be recorded in the most grateful manner, and held up as incitements to their brethren at large. Having made these few preliminary observations, we shall proceed to lay before our readers some account of Dr. O'Halloran's labours.

The work is dedicated, by permission, to His Royal Highness the Duke of York, and as this commander-in-chief has always been distinguished by his discrimination in rewarding merit, we hope His Royal Highness will not permit the present occasion to be regarded as an exception to the general rule of his conduct.

Dr. O'Halloran having spent some years in the West Indies, and there undergone, in his own person, a visitation of yellow fever—and having also served some time in North America, and at Gibraltar, he may be fairly allowed to be a proper person for the investigation in question. It will also be recollected by our readers that our author accompanied the venerable Dr. Jackson on a former occasion, and assisted in exploring the nature, causes, and treatment of the epidemic on another part of the Spanish coast.

The first chapter of the work contains a sketch of the medical topography of Barcelona and its environs, of which we deem it proper to take some notice. Catalonia, the province is bounded on two sides by the Pyrennees and Mediterranean. Its mountains are high and rugged, and intercepted by deep ravines, through which torrents descend impetuously in the rainy season. The elevated country, not mountain, is a light barren soil. The plains are numerous, small, and fertile. The country is watered by several rivers, of which the Ebro is the largest. The country contiguous to Rosas is alluvial, swampy, and extremely insalubrious, the inhabitants being severely harrassed by intractable, and often malignant, intermittents. To the eastward and northward of Barcelona there is no ostensible swamp, but water is found at all points there within three feet of the surface. The country to the *westward* of the city is watered by the Llobregat River, and the principal part of the land contiguous to the river is swampy during the autumnal months, or rainy season, after which period it becomes partially dry, and admits of culture. The district adjacent to the mouth of the river, a mile in extent, "is actual swamp at all times."

"The noxious exhalations from this source not only produce

disease among the peasantry, but the air of Monjui, a hill which overlooks Barcelona, is so deleterious in its qualities, as to render it necessary, on some occasions, to relieve the stationary guard every eight or ten days. The injurious impression of the exhalation arising from this swamp, manifests itself more conspicuously upon the summit than in the subjacent parts. Few escape disease who reside on the hill for any length of time; those who dwell on its skirts, or on the plain below, suffer little sickness comparatively, and experience little comparative mortality from their sickness; a fact proving, with a multitude of others, the superior force of the noxious influence of vapours, ascending from low, swampy grounds, to rocky and mountainous heights in their neighbourhood." P. 5.

This hill, which is 700 feet high, is not only useful in protecting the town and harbour from the enemy, but apparently in screening the town and environs from the unwholesome exhalations which arise from the swamp on the western side.

Barcelona itself, situated on a bed of sand, nearly level with the sea, covers a space of two miles and a half in circumference. The houses are generally from three to five stories high—some of the apartments being large, spacious, and well ventilated—the windows of the sitting rooms descending to the level of the floor, and consequently the air circulating freely.. The sleeping rooms, however, are too often small, dark, dirty, and without any means of ventilation. The houses have generally areas in the centre, but too small for light or ventilation. The under floor or flat is seldom inhabited, and abounds with exhalable moisture.

"The streets are extremely narrow, being seldom broader than two, three, or four yards, crooked, and intersected by a number of lanes and alleys. The sides of the streets are well paved: there are shallow drains in the centre for the conveyance of filth and water from the houses. They are covered with massive pieces of rock, three feet long, and about eight inches broad, so arranged as to leave interstices for the passage of water from the houses, during the prevalence of the autumnal and winter rains. The unwholesome vapours, produced by the filth which stagnates in the sewer, exhale through the interstices, so as to offend the sense of smell at all seasons of the year. They excite the disgust of the inhabitants who are accustomed to them; they not unfrequently turn the stomach of strangers.

"Upon the whole, when the narrowness of the streets, the excessive filth in the dwelling-houses, the extraordinary construction of the sewers in the centre of the streets, and the dampness of the under stories are fully considered, there can be no surprise that the endemic disease should be of an aggravated kind, and under the influence of a contingent epidemic, that it should be malignant." 8.

In Barcelona and environs ague is the most common form

of disease—remittents are not rare—continued or gastric fevers are frequent at certain seasons—"and a form of malady called typhus by some, and at present known by the name of yellow fever, has appeared at intervals from the commencement of the present century." In 1803 and 1819 it prevailed to some extent—the mortality was considerable, but the disease was not then considered as arising from pestilential contagion.

In Barceloneta, a small but regularly built town in the vicinity, the houses touch on the back part, and consequently are very deficient in ventilation. The apartments are small, and the whole interior miserable, on account of the filth of the inhabitants. It is also built on an alluvial soil, abounding at all seasons of the year with exhalable moisture. In this place, as may be readily supposed, the mortality was greater in proportion than in other and better situations. Yet the servants of the hospital did not suffer here; for of fifteen persons who were constantly employed in the care of the sick, only one contracted the malady.

"At the extremity of the harbour, between Barcelona and Barceloneta, the principal sewers of the city deposite their disgusting contents; and, as several of them unite at this point, they form a stream, the water of which is black as ink. It runs in an open channel for the distance of one hundred and fifty yards, before it falls into the sea. The effluvia which arise from this canal are disagreeable in the extreme, at all seasons of the year; they were unusually so before and during the epidemic, the drought being unusually great and of long continuance. Some of the families in the vicinity were so annoyed by it, as to be induced to quit their houses, and repair to the country. Besides the loathsome condition of the part alluded to, and the disagreeable effects it occasioned, not only to the inhabitants of the houses in the immediate neighbourhood, but to persons who accidentally passed that way, the sea for years past has gradually retired from the walls, having previously deposited sand in considerable quantity. The deposition is partially a swamp at the present time, from which, during the prevalence of hot weather, very offensive vapours arise." 12.

In the vicinity of this, the embouchure of the channel contained several condemned and half-rotten vessels, in a state of filthiness that nothing could surpass, and emitting a most offensive smell. From this account of the town harbour and locality, it will not appear surprising that fevers of a complicated and dangerous nature should arise occasionally there, without preternatural or foreign influence. In the summer of 1821, the first case was said to have appeared on shipboard, but this is not proved by good evidence. Wherever it began, it soon ravaged like a pestilence all the districts of

this beautiful suburb, destroying life beyond any thing previously known in Spain.

The climate of Catalonia is very changeable, and the predominant easterly winds are always charged with moisture. In spring and summer the winds are hot and oppressive—the thermometer generally ranging between 77° and 86°—the mercury has even been known to rise as high as 90°. In fact, they have complete tropical temperature for some months of the year, and with it visitations of tropical diseases.

The second chapter of this work is entitled—"Importation of the Yellow Fever into Barcelona, in the Year 1821." The origin of yellow fever has occasioned much unprofitable discussion among the Spanish, as well as among our own physicians. Some of them consider it a disease of foreign origin imported through the medium of ships, clothes, or goods—others suppose it to be the endemic of the country, disfigured in its form through contingent causes, atmospheric or terrestrial.

The story of the Dolphin brig importing the yellow fever into Cadiz, in 1800, exhibits a remarkable illustration of the delusion which exists in Spain, and of the facility with which the credulous inhabitants of that country are imposed upon. This vessel sailed from the Havannah on the 26 of May, 1800; touched at Charleston, in South Carolina, on the 30th, and there embarked three sailors, the town being in perfect health. She sailed again on the 11th of June, and arrived at Cadiz on the 6th of July. Twelve sailors composed the crew, and there were 22 passengers. Dr. Carrow, a physician, was among the latter. Three sailors died on the passage, in consequence of which the Board of Health at Cadiz interdicted all communication with the shore, the *captain* of the vessel stating that the men died of yellow fever. Dr. Carro, however, who attended these men, contradicted the assertion of the captain, and the whole of the passengers bore testimony in the same direction. Yet the opinion of the captain overruled that of the physician—consequently the importation of the disease was fixed on the Dolphin!

Each side of the question has its partizans in Spain; but the advocates for importation are most numerous, the voice of the people, and the policy of the Government, being all on that side. The others, who doubt this doctrine, dare not dispute the popular and political creed. "The delusion is an article of faith—is grateful to the people—is maintained by the Government for purposes,—and those who have the pertinacity to oppose, or offer facts in refutation of opinions, if not legally punished, are viewed in the light of fools, and laughed at by the mass of the nation." Under such circum-

stances it would be vain to look for unbiassed arguments or discussions from the Spanish profession. We must therefore trust to the observations of unprejudiced spectators from our own or other countries.*

Previously to exhibiting a brief sketch of the Barcelona epidemic of 1821, our author prefixes some observations on the state of the weather, and the prevailing forms for the half year preceding the rise of that destructive malady. These we must pass over, but the following short extract presents a kind of recapitulation.

"The extraordinary changeable state of the weather, the prevalence of diseases uncommon at other seasons, the severity of catarrhal, rheumatic, pneumonic, and other febrile affections, the numerous miscarriages, the sudden deaths of persons apparently in health, the suffocation of individuals who were exposed to mephitical vapours in the necessaries of the city, the sudden and inexplicable creation of some classes of animals, and the unaccountable destruction of others, were circumstances which foreboded an impending evil, which neither the ingenuity of man, nor any power which he has within his reach, could avert." 27.

The medical faculty could not correctly ascertain the precise period when the common endemic bilious remittent fever ceased, and the real epidemec began—no inconsiderable proof, as our author properly remarks, of the analogy which subsists between the two diseases. The first cases which appeared in 1821 passed unnoticed, but as the disease became aggravated, and when it was discovered that a formidable malady reigned in the place, then some of the physicians and most of the people were unwilling to acknowledge that a disease of such malignity could have its origin among them. A tale of importation, therefore, was conjured up, and the awful visitation was ascribed to intercourse with the infected subjects of shipping, &c. A Neapolitan sloop of war, from cruising in the Mediterranean—a brig from the Havannah—a vessel from Cadiz—two vessels from Mahon, and several craft in the harbour, from various points of the compass—these were pitched upon as the pestiferous agents in the epidemic! We need not accompany our author in his refutation of these ridiculous stories, as no rational physician in this country will give any ear to them.

"The authorities, perceiving the slow and gradual progress of

* After the Jesuitical conduct of the Court of France towards Spain, we can put little confidence in the *official* reports respecting the contagious character of the Spanish fever which have been published in Paris.

the malady, and willing to make the public believe that it was wholly confined to the port, declared in the public papers, that they had it within their control, and consequently that it should be brought to obedience. The promise was bold, but not wise. Force of arms was of no avail; the disease started up in different parts of both towns, without a possibility of ascertaining from whence it came. The futility of guards became obvious; the troops were removed from the port, and the gates of the city were closed against the inhabitants of Barceloneta. After that was done, the malady spread with extraordinary rapidity in Barceloneta, and in that part of Barcelona which skirts the port: scarcely an individual escaped who was long exposed to the atmosphere of these localities; for there the morbific cause would seem to have been concentrated in a singular degree. From Barceloneta the disease marched in a westerly course through the centre of Barcelona, diminishing in activity as it proceeded outwards. It was finally lost before it reached the north-west extremity of the city; and, beyond a given limit the epidemic character ceased, or only appeared by accident." 35.

Our author states, in the next few pages, the circumstances which lead to the rejection of the doctrine of importation. They are strong and numerous—and, as far as this fever is concerned at least, they are quite conclusive.

All the world has heard of the famous French commission sent by the Cabinet of the Tuilleries to the South of Spain—not to disprove contagion, it may be assumed, but to countenance the mask worn by the "Cordon Sanitaire." Messrs. Pariset, Bally, and Francois, in their report to the political chief of Catalonia, assert, 1st, that the fever was (of course) foreign or exotic of Spain, and imported into that country—2dly, that it was contagious, or capable of propagating itself afterward, a quality that need hardly be questioned if it was capable of being carried across the Atlantic—3dly, that the disease was a perfect proteus, and therefore that it was impossible to lay down any plan of treatment. In short, they acknowledge that profuse *spontaneous* perspirations were the best kind of physic—and wisely conclude, that a good health police is infinitely preferable to the most excellent methods of treatment—"because in every country it is much better to have no sickness than good physicians." It is proper here to state that, in a private letter to a friend at Madrid, Dr. Pariset lets out the following curious piece of information:—"In fact, my beloved friend, *the malady is so inveterate and fatal, that there is no facility for the dissection of bodies, as one would desire, nor of remaining in the hospital the necessary time, in order to observe deliberately the disorder.*" What an acknowledgment from men who took upon themselves to solve such weighty questions!

"A ward was allotted for the French commissioners in the Semi-

nario hospital, and adequate means of carrying into effect an effective system of treatment were afforded to them. They entered upon the task with eagerness, but not without using the precaution of covering themselves with oil-cloth dresses. This necessarily struck terror into the hearts of the sick, who naturally imagined, that where such means of preservation were employed by the faculty against the impressions of contagion, their own chances were almost desperate. The results of the practice of the French physicians were not successful; and the Spanish doctors now boast of one consolation, that, if they only cured one patient in ten, the French were still behind them; for there were, in fact, but very few recoveries in their wards.

"Under those circumstances, I cannot help expressing my astonishment at their effrontery, in making observations on the cure of a disease, which set their art at nought; and to which, in fact, they did not approach, except under circumstances which indicated that they were under impressions which obscured their judgment, and paralyzed their faculties; it is not therefore surprising that the French commissioners were unsuccessful practitioners." 68.

As for the manifesto of the Spanish Medical Junto, ycleped "the Medical Commission of Carthagena," it is a tissue of equivocations and absurdities bearing intrinsic evidence that the commission scarcely believed a word of what they published! These said commissioners only visited the hospital *once*, and at the time the report was issued, no official investigation had been instituted to ascertain the correct history of facts! In short, the whole train of transactions, Spanish and French, is too well caculated to show how medical opinions have been subjugated by political despotism. Thank God, in England we are yet free to exercise our judgments without fear of ruling powers, and if we come to investigations with biases or prejudices, they are those of the individual, who would scorn to succumb to the dicta of political authorities.

The 3d chapter of the work before us contains "general observations on contagion," and we regret that we can give but a very limited view of these observations, as they are not very susceptible of analysis. Still we feel anxious to state some of the many important circumstances brought forward in this chapter.

It appears that the disease ravaged like a pestilence the cities of Barcelona and Tortosa, destroying thousands, without respect to age or sex;—while in the towns of Asco, Mequinenza, Malaga, Cadiz, Seville, and several other towns, its attacks were so limited as scarcely to deserve the name of epidemic. Now, our author argues thus:—

"Had the propagation of the malady depended upon specific

contagion, or intercourse with the sick, the result, it is presumed, would have been pretty similar throughout the different towns in which the contagion appeared; for the most unlimited intercourse took place between the sick and healthy."* 71.

As in each of the towns in which the minor epidemics prevailed, between two and seven hundred persons died of the yellow fever—and as some thousands, at least, must have been exposed to the contagion, if it did exist, it must be granted, that if the malady was contracted by intercourse, or near approach, the result ought to have been similar in all. The reverse was the case, apparently owing to some atmospheric or terrestrial difference.

"The disease was diffused rapidly in some; in others, where the cause existed in a minor degree, the friends and relations performed all the necessary offices for the sick, and attended carefully at their bed-sides: the children slept with their parents, the wives, regardless of danger, slept in the very bed with their husbands; yet, the individuals who were thus exposed to the impressions of contagion, if contagion existed in the case, were not injured by the communication, even under circumstances apparently favourable to the diffusion of contamination." 73.

In the city of Barcelona, where the disease appeared, for the first time, in the year 1821, and where the physicians were, to a man, prejudiced in favour of contagion, a rigid scrutiny was nevertheless made, not only in private houses, and public establishments, but also in the adjacent villages, country-houses, and lazarettos.

"And when they were convinced as to its true nature, from the strong proofs which daily offered to their observation, they were too candid, liberal, and enlightened, not to forego their former prejudices; and, with the candour and magnanimity of men of science and knowledge, they have, with few exceptions, avowed to the world, that the doctrine of contagion, in so far as relates to the disease called yellow fever, is founded upon fiction." 74.

During this destructive epidemic every kind of traffic went on extensively between Barcelona and the different provincial

---

* "The Spanish soldier of the present day is, probably, the most wretched object of the community. He is sometimes ill fed, ill paid, ill clothed, and not unfrequently destitute of the common means of support: he is always open to bribery. As admission is thus obtained to the bed-side of the sick, if it be desired, the preventive measure of the government is thus violated; and, as the lower orders of Spaniards evince a total indifference to the danger of visiting their sick friends, the most unlimited intercourse does or may take place. This is the fact: the orders to the sentinel are peremptory; they are disobeyed for a trifling sum of money."

towns—and yet all those towns and villages, with the exception of Tortosa, Asco, and Mequinenza, which are situated on the muddy banks of the river Ebro, at a distance of more than ninety miles from Barcelona, enjoyed absolute immunity from sickness.

"It is evident," says our author, "from what has been stated, that some other cause, besides contagion, must have been in action before the disease became epidemic; for, had the propagation depended upon specific contagion, all parts of the city of Barcelona would have been similarly affected: it is, on the contrary, known, that parts of it were healthy where no precautions were taken, and where no ostensible cause could be assigned for exemption; except that of distance from what appeared to be the focus of the cause, or by contingent protection from the force or free play of the pestilential atmosphere; which having its origin in the eastern part, was obstructed and actually destroyed before it reached the north-west extremity of the city, where comparative good health prevailed. The almost absolute exemption of one part of the city from fever, under the circumstances described, proves that no contagion existed in the case, and that the epidemic cause was somewhat connected with the noxious vapours arising from the depositions of filth in the port and surrounding parts, for there the disease prevailed to an extraordinary degree." 89.

Many remarkable circumstances are next stated by our author, affording strong reasons for concluding that the epidemic in question possessed little, if any, contagious character. We shall only have room to quote one of these circumstantial facts.

"The Casa Misèrecordia, or House of Pity, is a building of considerable magnitude, situated in the immediate vicinity of the House of Charity, in the north-west extremity of Barcelona, in an apparently healthy situation. The building is low, but the apartments are spacious and well ventilated. It contained one hundred and fifty girls during the rage of the epidemic. The nuns who teach them are twenty-four in number. They maintain themselves by washing, ironing, and other similar modes of occupation. They employ women to traverse the city—from house to house, to procure needle work, &c. These women went to all parts of the city; they communicated indiscriminately with the inhabitants; they were not affected by the disease; nor did the nuns or girls suffer by communicating with them." 93.

This, as Dr. O'Halloran observes, is a singular and a strong fact. For it certainly appears strange that a disease which was said to have been transported from the Havannah to Barcelona, and from Barcelona to other places, could not be introduced into the Miserecordia through such numerous channels of communication!

We cannot resist the desire to give the particulars of another, among the many instances of a nature similar to the foregoing.

The House of Correction, situated in the north-west extremity of the city, is a building well ventilated and with spacious and clean apartments. In this there were 100 females during the epidemic season. Nine of them were attacked with the reigning malady, and these were removed to the Seminario Hospital, where four of them died. The other five returned to the House of Correction, where they freely communicated with all the inmates, yet no more sickness ensued. This house was also visited by some of the female inhabitants of the city, who, through charity, brought eatables, &c. but no infection to the institution.

"It is unnecessary to multiply examples. Some hundreds may be produced to prove the noncontagious nature of the malady, more particularly in the country within the cordon, where the population was immense, owing to the emigrations from the city. I shall, however, briefly observe, that the course of the malady from north-east to south-west, the different degrees of force attending its action in the course of its movements, its unusual destruction at what may be called the focus, during the whole of its continuance, the irregularity of its proceedings, jumping from point to point, and leaving intermediate places untouched; the diminished degrees of violence by which it was characterized as it proceeded toward the westward; its fatal and malignant nature in ill-ventilated places; the exemption of parts of the city from its influence, where no precautions were taken; the sickening of persons who observed the strictest seclusion; the sudden impression of contaminated air on persons recently from the country, without communication with the inhabitants of the city, the greater exemption of nurses and other attendants on the sick from the disease, than those who were simply exposed to the contaminated air of sickly houses; the almost absolute exemption of washers of bedding, clothes, &c. which had recently been used by the sick; the circumstance of the attendants in the hospitals and lazarettos having generally escaped the impression of the malady; the impossibility of diffusing the disease in the country, where no epidemic cause existed; and, finally, the deaths of some hundreds of persons who communicated with Barcelona, and who sickened in the neighbouring villages and country houses, without a solitary instance of its affecting the most assiduous of the attendants, however circumstanced, are ascertained facts, and convincing proofs of the non-contagious nature of the yellow fever." 101.

We must pass over several chapters that follow, on the medical topography and fever of Tortosa, Malaga, Puerto de Santa Maria, Xeres, Lebrixa, San Lucar de Baromada, and Cadiz, as we cannot do justice to our author's laborious investigations within the limits of this article. In the tenth

chapter on Cadiz and Gibraltar, Dr. O'Halloran has made some sharp criticisms on Dr. Pym, and indeed has taxed him with certain erroneous statements which it will be indispensably necessary for Dr. P. to notice and explain if he can—more especially the statement in his (Dr. P.'s) book respecting the entire immunity which the inmates of the Dock-yard are said to have experienced in the year 1813, in consequence of cutting off all communication with the garrison and other parts of the rock. Dr. O'Halloran, in opposition to this, gives a list of eight deaths (from the fever we presume) which occurred in this secluded spot, out of a population of 170 souls, between the 18th September and 23d December of the said year. A list of sixteen sick is also given, but the diseases are not specified. The charge is made against Dr. Pym with such gravity by our author, that the former cannot, we imagine, allow it to remain unnoticed.

In the "general remarks" which follow the 10th chapter, our author recapitulates most of the arguments, founded on the facts stated in the body of the work.

"From an impartial consideration of all the circumstances attending the epidemics of Spain, in the year 1821, the conclusion is, I think, fairly deducible, that the disease was not, and is not occasioned by imported contagion; and that its origin cannot be attributed to the germ of the former epidemic, resuming original activity from the operation of a peculiar state of the atmosphere, without which it would remain dormant perhaps for ever." 177.

On the contrary, he thinks that, would the Spaniards permit themselves to draw conclusions from an accurate knowledge of the general laws of the epidemics of the Mediterranean coast of Spain, and from the nature, construction, and situation of the towns, the conclusion would be irresistible:—

"*Viz.* that warm south-east breezes, unusual drought, excessive heat, want of ventilation in the houses, exhalations from swamps, lakes, &c., and, above all, the malignant effluvia which arise from the decayed remains of putrid animal and vegetable matters, with which the majority of the seaport towns of Spain abound, and which in calm and sultry weather, particularly in hot and oppressive nights, render the air impure, and offensive to the sense of smell,—are the causes which essentially influence or increase the activity of what may be called the seminium of epidemic yellow fever." 180.

The eleventh chapter is entitled "dissections," which are eleven in number. They all exhibit the ravages of the fever on various organs and parts, demonstrating the inflammatory nature of the complaint, and the necessity of antiphlogistic measures. The following extract will prove interesting to our readers.

"There are two points, particularly, in the foregoing dissections, which claim the attention of the reader. They unequivocally prove the highly inflammatory nature of the malady, and the cause of its unusual destruction. I believe that the internal state of the eye has rarely been the subject of post-mortem researches; and as I am of opinion, that its contents are more or less deranged by the effects of inflammation, when that organ is the seat of pain, accompanied with external redness: I also think, that the discovery is important, as proving to a demonstration the almost utter impossibility of removing the disease without the rigorous employment of the lancet, and other means of depletion.

"The state of the kidney, next to that of the eye, claims our attention. It is the general opinion, that this viscus is not liable to suffer from inflammation and its consequences in the yellow fever, even where suppression of urine is a fatal and prominent symptom for days. I have seen more than two hundred dissections, but I do not recollect having seen the kidney examined minutely, a single incision through the pelvis satisfied the examiner, who pronounced it healthy. In all the post-mortem examinations which took place previous to my arrival at Barcelona, if I can credit the report of persons who assisted at them, little attention was paid to the kidney,—a single cut and no more. In my four first dissections I was equally careless with regard to its state, having been informed, that in no one instance did it exhibit marks of disease, although suppression of urine was a prominent symptom in almost all the fatal cases. In the case of Maria Gouch, I accidentally discovered abscesses: the existence of abscesses in the papillæ of the kidneys led to the examination of the ureters, which also contained pus. I cannot say that abscesses of the kidneys are common in the yellow fever of Andalusia, having only performed a few dissections there; but, as the symptoms of the disease in Barcelona (where I am disposed to think, from what I witnessed, that abscesses of the kidneys were common) bore considerable analogy to the inflammatory form of the Andalusian fever, I am inclined to believe that the same appearances exist, and will be found on dissection; and as it is a most important point, as connected with the treatment, to ascertain whether or not the suppression of urine arises from inflammation of the kidneys and its consequences, I must take the liberty of calling the particular attention of anatomists to this important subject. Every atom of the viscus ought to be examined; the abscesses are extremely small, and difficultly discovered. The liver in most cases exhibited unequivocal marks of recent disease, more so than I before witnessed. The post-mortem examination of subjects, who die of the yellow fever, should take place as soon as possible; for the different organs, viscera, &c., more particularly those that have recently suffered from diseased action, undergo changes in a few hours, so as to become brown, black, and apparently gangrened, while the appearances of other parts, that were comparatively healthy, are also changed after a given time. I am disposed to think, that if the body be not examined in five hours after death, little information can be obtained of the actual state:

and that this, in a great measure, accounts for the extensive gangrenous appearances which anatomists have described, and which, in my opinion, rarely take place during life as the effect of disease; but as the vitality of parts, upon which a prominent morbid action exercises its injurious influence, is more or less in a state of debility from the effects of inflammation, when dissolution takes place, they more readily undergo changes and assume gangrenous appearances than healthy parts. This may be proved by exposing the abdominal contents as soon as possible after death. Then the changes are evident; for the parts, which have suffered from recent disease, change colour and become black in a very short time, whilst those, that have sustained no injury, retain the natural colour for a much longer period." 203.

In concluding this article, we acknowledge that we have not been able to do that justice to Dr. O'Halloran's publication, which its own merits and the zeal and talents of its author deserved. We hope, however, that we have done enough to excite all those whom it may concern to consult with care the original work. We have no doubt that the able and worthy author will not be overlooked by the commander-in-chief or the heads of his own department.

IV.

Analysis of the Article "Cas Rares," *in the Dict. des Sciences Medicales.*

"Apparent rari nantes in gurgite vasto." Virg.

Considering how small a proportion of our Medical Readers can peruse, or have access to, the colossal work above mentioned, we trust that in condensing a very curious Article entitled "Extraordinary Cases" by M. Fournier, we shall merit the approbation of a great majority of the friends of this publication.

M. Fournier declares, that he has made a very scrupulous selection of facts for this article, rejecting all histories of cases that are not attested by unquestionable authorities. He divides the "cas rares" into three classes or sections, as they affect the anatomical structure—the physiology or functions—and, lastly, the laws of the animal economy.

FIRST SECTION.

M. Fournier remarks, that of all organs or parts of the body, the brain is found to be least frequently in a state of aberration from natural structure, independent of disease. The relative *size* of this organ, therefore, occupies the first pages of the article. Dr. Louis Valentin has published the description of a cranium, very remarkable for its dimensions, which is preserved in the Cabinet of Natural History at Marseilles. The man's name was BORGHINI, who died in the above-mentioned city in 1616, at the age of 50 years. He was but four feet in height, yet his head measured *three feet* in circumference. The bones were thin, and there was an opening, the size of a crown-piece, where the sagittal meets the coronal suture. Dr Valentin facetiously remarks, that although poor Borghini had so much *brain*, he had very little *wit*;—so little, that it became proverbial at Marseilles to say to any stupid fellow—"You have no more wit than Borghini!" When he became advanced in years, he was obliged to have a cushion on each shoulder to support his head.

2. The next "cas rare" is a Moor at Tunis, whose head was of such a prodigious size, that people gazed at him wherever he went. His nose was four inches long, and his mouth was so capacious, that he could bite through a melon with the rind on, as easy as another person could bite through an apple! This man was also imbecile.

3. The third was *Philip Sormet*, a native also of Marseilles, and who died there in 1807, aged 71 years. He had a prodigious head. H never lay down in a bed for thirty years before his death, nor ate more than one meal a day. He was not, however, quite so stupid as his townsman Borghini, for he was a great compiler, and also a *critic*. His voluminous manuscripts were found, after his death, to be entirely extracts from authors, (his criticisms were always verbal,) which he had been compiling, or rather *piling*, from every book which came in his way. He used to pass by Borghini's head every day in the public library, but affected to take no notice of it. He would there collect around him forty, fifty, or sixty volumes, and often go to sleep among them with the pen in his hand.

4. The fourth was a young man at Lucca, whose head was more than *three feet* in circumference, and face fifteen inches long! The rest of his body was well proportioned, and his intellectual faculties remarkably bright. He died of apoplexy at the age of thirty.

5. Passing by several not very interesting cases of aberrations from Nature, in the hair and eyes, we have the description of a curious Cyclopean monster by Eller. In 1755, a

child was born with an enormously large head and frightful visage. In the middle of an ample forehead was an only eye, large but without eyebrows or eyelids, and above the eye was a thick cylindrical excrescence, resembling a penis, with urethral canal, prepuce, and glans!

6. There is nothing very worthy of notice among the cases of peculiarity of structure in the ears, nose, and mouth. Two curious instances of very long tongues are brought forward, and they were in *females*. M. Fournier saw a woman at Berlin, whose tongue was amazingly large, but thin as a cat's. When this woman laughed, her tongue covered the whole of her mouth, and hung out like folds of drapery. It was always cold, and communicated a most frigorific sensation to the hand of another person. The same author knew a handsome young woman, fifteen or sixteen years of age, who, although she had a long neck, could extend her tongue to her breast without stooping her head!

7. A third case is related of a young Portuguese lady, who, instead of a tongue, had only a small eminence resembling a nipple. This eminence had a slight contractile and expansive motion, and yet this young lady contrived to *speak* distinctly, though she was forced to use her finger in pushing the chewed aliment back towards the pharynx to be swallowed!

8, 9, 10. Morgagni mentions a man in whom the epiglottis was wanting, though he spoke and swallowed without difficulty. Vicq. D'Azir relates a case of a man in whom there was a dilatation of the œsophagus resembling the crop of birds. In swallowing, the food passed into the sac, and there remained till he vomited it up; this man died exhausted. A young woman had a difficulty of swallowing from her infancy. Towards the period of menstruation, it got worse, and the disease increased rapidly, and was always aggravated by exercise. At length deglutition became impossible, and the poor young woman died. On dissection, the cause of the malady was found to be an aberration in the course of the subclavian artery, which passed *between* the trachea and œsophagus, compressing the latter, and preventing deglutition.

11, 12. Diemerbroeck dissected a subject in which the diaphragm and mediastinum were entirely wanting; and where the lungs formed but one lobe. M. Fournier himself examined the body of a soldier, who had been killed in a duel, and in whom the heart occupied the right side of the thorax, and the lungs (in one lobe) the left. The stomach and intestines were naturally situated, but the liver was placed in the left side. Telasius asserts, that he dissected a Roman

soldier, in whom there was not a vestige of *heart* to be found! However *heartless* a set the degenerated inhabitants of the "eternal city" may now be, we think M. Fournier might have placed this among the "cas rares *fabuleuses*."

13. Passing over a long list of females who had three, four, and even five breasts, we come to a curious malformation in the body of an officer who was opened, and where the whole of the stomach and part of the colon were found in the left cavity of the thorax, into which they had passed through cartilaginous rings in the diaphragm that adhered to these viscera as they entered. The colon, after entering the thorax through the left side of the diaphragm, returned through an aperture in the middle of that muscle, and then pursued its usual route. The right cavity of the chest was filled with water, (the lung being wasted) and the heart was much enlarged.

14. "An *adult*, who died of dropsy, was opened. The liver and spleen were entirely wanting. The vena portæ opened immediately into the inferior cava. We have nothing analogous to this case, says Fournier, upon record, but the authority of *Lieutaud* prevents us from rejecting it as suspicious."—Granting that this was the case, it does not detract from the importance of the *hepatic* functions, in the animal economy, any more than the case of the Roman soldier proves the *heart* to be an unnecessary organ in the human frame.

15. The following case is so remarkable, that we shall translate it verbatim.

"*A girl, 14 years of age, well grown, and of a beautiful figure, had neither genital organs nor anus, nor any vestige of them, the parts where these are usually seated being covered with natural skin. This young person ate with an appetite; slept well; and enjoyed excellent health. Every two or three days she felt, in the umbilical region a deep seated pain accompanied by an increasing uneasiness, till at length she vomited fœcal matter. From that moment the pain and uneasiness would cease, and after washing the mouth carefully, and chewing some aromatic substance, the disagreeable smell of the excrements would subside.* The urine was evacuated from her breasts. ("*Les urines s'evacuaient par les mamelles.*") *It would have been desirable to observe this girl at the epoque of the commencement of the catamenial period, to see by what means Nature would deliver herself from the menstrual fluid, or what accidents would happen from its retention in the uterus.*"

16. M. Fournier relates the case of a woman, 22 years of age, whom he found to have the anus imperforate from birth. The rectum opened without any sphincter into the vagina.

17. Zacutus Lusitanus relates the case of a child who was

born with a membrane over the anus, and passed the excrements, per urethram, for three months, when the natural passage was established, and the fæces gradually resumed their proper course. Several other well attested cases of the fæces passing, even for years, through the urethra, are related, but the above specimen is sufficient.

18. A man was dissected by Lieutaud, in whom the urinary bladder was wanting. The ureters were as large as small intestines, and terminated at the lower part of the pelvis, in the urethra. He died at thirty-five.

19. A man, aged 32, passed his water by the navel. It came out with a jet, as though a sphincter existed there.

20. Lieutaud relates a case, (the only one on record,) where no vestige of a womb was discovered on the dissection of a woman. *Coitus erat difficilis.*

21. Professor Lobstein, of Strasburg, dissected a woman who had two distinct wombs. He thinks that where there is a superfœtation or double conception, there must be two wombs, as above.

22. A single woman of *fourscore* years of age, ("Une fille de quatre-vingts ans,") had the hymen nearly circular, with only a small perforation in the middle! It is preserved (as one of the greatest curiosities in all *France*) by M. Sue, Member of the Academy of Surgery. M. Fournier says, this is a most surprising phenomenon, since the hymen is so early destroyed, in general, by the most *innocent introductions*. Puisque l'hymen se détruit de fort bonne heure, par les *introductions les plus innocentes.*"

23. Vallesnieri dissected a female in whom were found two uteri; the orifice of one opened into the vagina, of the other into the rectum. M. Fournier says, there is no doubt but that *coitus per anum* would have been followed by conception. He grounds this opinion on the curious case related by the celebrated Louis, of a young lady who had a congenital imperforation of the external organs of generation. This girl menstruated per annum. She was solicited in marriage by a young man to whom she was attached. After much resistance she confessed to him the secret.—"Dans le delire de sa passion, il supplia son amante de consentir a ce qu'il s'unit a elle par la seule voie qui fut practicable; elle souscrivit a tout, et bientot elle devint mere. L'accouchment a terme, d'un enfant bien formé, eut lieu par l'anus." Louis made this the subject of a thesis, and was prosecuted by the parliament of Paris; and the doctors of the Sorbonne *interdicted* him for addressing to the casuists the following question:—"In uxore, sic disposita, uti fas sit, vel non? judicent theologi morales." The Pope, however, more philosophic

than the Parliament or the Sorbonne, gave absolution to Mons. Louis, and his Thesis was published in 1754.

From the Cases of Hermaphrodites we shall not select any, since M. Fournier is of the same opinion with the physiologists on this side the water, that they are all merely *imperfect* males or females, chiefly the latter, and never conjoining the two sexes in one.

At the end of hermaphroditism, it is asserted, on the authority of Hufeland, that the body of a child, three years of age, was lately opened at Berlin, in which there was not the slightest trace, either internally or externally, of any part of the genital organs peculiar to either sex.

We have next a dissertation on those causes which change the colour of the human skin, and on *nevi materni*. M. Fournier believes, contrary to Richerand, and most of the physiologists of the present day, that strong impressions on the mother, during pregnancy, will indubitably occasion nevi materni, though the vulgar have exaggerated the circumstance by attributing every trifling mark to causes of this kind. His remarks on Albinos have nothing novel in them.

M. Fournier concludes the first section of this article with the description of a man, who lately died at Paris, and was examined by the *Ecole de Medecine*, from whose procés-verbal the details are taken. Marc Catozze, commonly called the little dwarf, was born at Venice, of robust parents, and had several brothers, strong and well formed. He died a few years ago at Paris, aged sixty-two years. The trunk of the body exhibited nothing remarkable, and appeared to belong to a person of about five feet six inches in height; there was, however no scrotum. The upper extremities consisted of merely two prominent shoulders, to which were attached two hands, without either arms or fore-arms. The lower extremities consisted of a flattened plane, (une fesse applatie) to which were appended two ill-formed feet, without thighs or legs. As Catozze could not feed himself, or bring his hands to his mouth, Nature had furnished him with a curious under jaw, which he used as an elephant uses his proboscis. At least with this he managed his victuals very well. Catozze was very fond of women, wine, and good cheer. He was also fond of society, and spoke and wrote several languages. On dissection, several peculiarities were observed in the interior of the trunk, but they need not be recorded here.

Section. II.

Or, singular aberrations from the natural functions and actions of life. This Section is alphabetical. It commences with abstinence.

1. On the authority of Vanderviel, a madman, who conceived himself the Messiah, totally abstained from food and

drink during a space of *seventy-one days!* All that he did was to smoke and wash his mouth. His health was not impaired. He passed no excrement in that period. Credat Judæus!

2. In the Memoirs of the Academy of Sciences for the year 1761, another case of abstinence is related, which lasted *four* years, accompanied with very curious circumstances! Skepticism and credulity are, they say, frequently united!

3. Extraordinary lactation.—In the year 1810, a poor woman, of the name of Charles, was delivered of male twins; but being of a weakly constitution, and unable to suckle them both, she applied one of them to the breast of his *grandmother*, aged 65 years, and in the twenty-ninth year of her widowhood. It was "great *cry* and little wool" with the poor boy for the first few days, but afterward the milk came kindly and copiously for twenty-two months, and this boy became the stronger of the two. This would have been encouragement to Johanna Southcote, as, in all probability, young Shiloa would not have required a wet nurse, but have drunk from the lactiferous fountains of his holy mamma. The above is on the authority of Dr. Montegre, who has published the circumstance in the Gazette de Santé.

4. A case of catalepsy is related by M. Fournier himself, and which was caused by the suppression of an habitual diarrhœa. This diarrhœa had continued five years, (having succeeded the cessation of the menses,) during which time she enjoyed excellent health otherwise; wishing, however, to get clear of the diarrhœa, she applied to a Charlatan, who gave her strong astringents, which suppressed the intestinal flux, and instantly brought on a cataleptic fit. M. Fournier was called in, and by purgatives, &c. restored the accustomed evacuation, and removed the catalepsy.

5. The following extraordinary effect of musk on the penis is absolutely incredible, though related by Borelli. "Borelli dit avoir connu un homme qui se frotta le membre virile de musc avant le coit; il l'exerca et resta *uni a sa femme comme les chiens le sont avec leur femelles.*" (How can this be possible?) "Il fallut lui donner une grande quantité de lavemens, afin de ramollir les parties et obtenir la separation des deux individus."

6. Cabrol relates the curious, but dreadful effects of cantharides, taken as an aphrodisiac. A man swallowed *two drachms* of this active medicine, and afterward effected *eighty-seven coitus in una nocte!* (L'insensé approcha sa femme quatre-vingt-sept fois pendant la nuit,) besides several seminal emissions. Death was the consequence.

7. Several cases of spontaneous human combustion are next

related. M. Fournier observes at the close, that the fac spontaneous combustion is now so indubitably proved, skepticism on the subject would be unreasonable.

8. After the details of an extra-uterine conception, a is related, where a fœtus was found in the abdomen of a ch A similar case is related in one of the volumes of the Med Chirurgical Transactions. A girl of 14 years of age die a pulmonary consumption; but had had from infancy a p ful swelling in the left side. On dissection, a fœtus, im fect in some of its parts, was found in a cyst attached to, communicating with, the transverse arch of the colon. French physiologists conceive, that in these cases, the taining and contained animals are congenital—viz. brother sisters.

9. Passing by several cases of extra-uterine concep and among others, one where the fœtus, in two or three cessive abortions, was brought forth by the mouth, we c to a curious case of constipation, where the man who wa affected, had fæcal evacuations every Wednesday only, that from his infancy. He suffered no inconvenience. other excretions were rather more copious than usual; fæces were well formed, and in considerable quantity w passed on the day above mentioned.

10. A gentleman is now living in Paris, in the 50th of his age, whose intellectual faculties are of the first or and who is intimately conversant in every species of lit ture. His style is so elegant that he is the delight of readers, while his critical acumen is dreaded by every m ocre author, whose works come under his censorial lash. person is tall and meagre, his complexion pale and billi He may be said to sleep none—at least, he does not s more than a quarter of an hour in the course of the ni When he sleeps four or five hours, it is the certain precu of a fit of sickness, which never fails to assail him in course of twenty-four hours after this unusual somnolesce He never passes a stool oftener than once in twenty-five thirty days, and that by the aid of glysters. Purgati have no effect on the stomach or bowels; his excrements like little stones, in the form of sheep or deer's dung. has no appetite, and eats very little. When ill, he will eat any thing for a month together, living entirely on dr He takes great exercise, walking sometimes above an h dred leagues, almost without resting; and it is at these ti that he enjoys the best health. He is highly irascible on least contradiction, but the goodness of his heart is ne altered.

11. One of M. Fournier's most intimate friends, arrive

the age of 48 years, without drinking any liquid. He ate, however, voraciously. He was never of course thirsty. For some indisposition he was twice bled, immediately after which he was seized with *hydrothorax*, and died.

12. Several instances are related of *rumination* in the human subject, similar to the rumination of animals; but they are unworthy of notice.

13. *Sweating of Blood.*—A woman, 46 years of age, had been subject to periodical hæmatemesis for a considerable time, for which strong astringents were imprudently administered, when the hæmatemesis suddenly disappeared, and was succeeded by diapédèse, or sweating of blood, which proceeded from all parts of the body in succession. It became periodical like the hæmatemesis.

14. Under the head of particular idiosyncrasies, the hæmorrhagic disposition of a female, named Smyth, in America, and her descendants of the male line, is related, but as this idiosyncrasy has been noticed in our own journals, it need not be repeated here.

15. Among the instances of longevity, PARR is not mentioned, but Henry Jenkins is said to have lived to the age of 189 years, and to have died in 1690.

16. M. Fournier relates the case of a *man* who *menstruated* regularly per urethram.

17. The following case, attested by the principal physicians and surgeons of Brest, must cast in the shade that of the *knife eater*, whose dissection excited so much curiosity, a few years ago, in this country.

A galley slave died at the Naval Hospital of Brest, of a complaint in his stomach, attended with cough and colicky pains. On opening him, the stomach was seen occupying the left hypochondrium, the lumbar and iliac regions of the same side, and stretching down into the pelvis. It was of a long square form, and contained the following substances; viz. a piece of a stave *nineteen inches long*, and half an inch in diameter: a piece of a broom-stick six inches long, and half an inch in diameter; another piece of the same eight inches long; ditto six inches long; twenty-two other pieces of wood, of three, four, and five inches in length; a wooden spoon five inches long; the pipe of an iron funnel, three inches long and one in diameter; another piece of funnel, two inches and a half long; a pewter spoon entire, seven inches long; another three inches long; another two inches and a half long; a square piece of iron weighing nearly two ounces. Various other articles, among which were nails, buckles, horns, knives, &c. the whole weighing about twenty-four English ounces. This poor creature was deranged in

his intellects—a great glutton; and when he could not cure victuals to satisfy his voracity, he swallowed ind tible substances, as above, to lull the painful sensatio hunger. This case is attested beyond all doubt.

18. Passing by the famous Bijoux, who lived at the P Menagerie, and amused himself in classing animals by forms of their excrements, we come to a singular perso well known in Paris, where he died a few years ago, an named *Tarrare*. This man's voracity would stagger all b were not the truth of the circumstances guaranteed by the unquestionable testimonies, among which it is only nece to mention Professor Percy. At 17 years of age Ta weighed only one hundred pounds, and yet he could de in the space of twenty-four hours, a quarter of beef as l as his body! At the commencement of the revoluti war he entered the army, but here he was so scantily plied with food, that he soon got ill, and was conducte the military hospital at Soultz. On the day of his entr he got four rations, which only serving to whet his appe he devoured every kind of refuse victuals in the ward, searched the kitchen, dispensary, &c. devouring every t even the poultices, that came in his way! In the presen the chief physician of the army, Doctor Lorenze, he live cat in a few seconds, leaving nothing but the larger b In a few minutes, he devoured a dinner prepared for f German labourers, and composed of various substantial di After this *tiffin*, his belly appeared like a small balloon! the French in those days turned every thing to account commander-in-chief had him brought before him, and treating him with thirty pounds of liver and lights, he c him to swallow a small wooden case, in which was enc a letter to a French officer, then in the hands of the en Tarrare sat off, was taken prisoner, beaten and confined. passed by stool the case with the letter, before he coul the officer, but immediately swallowed it again, to pr its falling into the hands of the enemy. In another ho where he was confined, the nurses frequently detected drinking the blood which had been drawn from the and when all other sources failed, he repaired to the house, and satisfied his frightful appetite on human At length a child of fourteen months old disappeared once, and suspicions falling on Tarrare, he also disapp for four years, when he was recognized again in the civil pital of Versailles, where he ended his miserable career. rare's voracity far exceeded that of the French prisoner in the Hoche last war, and whose gluttony is attested b late Dr. Johnstone. Indeed Tarrare seems to have rea

the fable of *Erisichthon*, who, according to the poet, devoured what would have supported a whole town—a whole people:

———"quod urbibus esse,
Quodque satis poterat populo."—OVID. MET. Fab. 18.

19. Two instances of precocious puberty are next related. The male instance is not more remarkable than the one lately published in the Medico-Chirurgical Transactions, and therefore need not detain us. The other is that of a girl, six years of age, who menstruated regularly. The remainder of this section contains nothing worthy of note.

SECTION III.

Or, curious Cases of Disease.

1. An ophthalmy, accompanied by ulcerations of the cornea, was cured by extracting some carious teeth of the same side. This hint is worth attending to, since it is pretty certain that many diseases are kept up, or even caused, by sympathy with other parts in a state of disease.

2. Dr. Forlenze found an ossification of the eye in a subject at Paris. The sclerotic was natural; but the iris, the crystalline lens, and the vitreous humor, were completely ossified. The same gentleman operated for the cataract in presence of M. Fournier, where the crystalline lens was perfectly ossified.

3. M. Imbert removed from the face of a Mons. Perrier de Gurat, a remarkable sarcomatous tumour affecting the nose, which was divided into five lobes, covering the greater part of the face, and rendering the visage so hideous, that the poor gentleman was obliged to seclude himself from society. It weighed two pounds. It was removed with safety.

4. A stone, the size of a pigeon's egg, was removed from under the tongue of a man 37 years of age. It had caused the most exquisite pain and profuse salivation.

5. Saxonia relates the case of a woman, who for a long time suffered the most excruciating pain on the *right* side of her head. On dissection, the *left* side of the brain was suppurated, while the right was perfectly sound.

6. A young lady died of long-continued and severe epileptic fits. On dissection, ten or twelve bony productions, half an inch in length and very sharp pointed, stood out from the cranium near the superior longitudinal sinus, penetrated the dura mater, and injured the brain.

7. M. Fournier relates the following case himself:—

"An unmarried woman, 48 years of age, was suddenly seized with

a pungent and lancinating pain in every part of the head, except the occipital region. This pain was excruciating, the patient appearing phrentic, and uttering the most lamentable shrieks. The paroxysms of pain recurred every five or six minutes, and lasted about a minute each time. The patient was pale, and the pulse slow and weak during the intervals; but as the paroxysm came on, the countenance reddened, and the pulse became frequent and bounding. M. Fournier learnt from the patient, that seven or eight months before this she had received a blow on the head by the key of a door, which had caused sharp pain for some time, followed by vertigo, which went off without any medicine. M. Fournier attributing the present symptoms to the former injury, prescribed a grain of the tartrite of antimony, which vomited her once. The second day, two grains were prescribed, and she vomited several times; the third and fourth days, the same medicine and the same result. The fifth day, three grains; the sixth, four grains of the tartrite, when violent vomiting and straining succeeded, during which there burst, all at once, a quantity of inconceivably fetid pus from the mouth, nose, and ears. From this moment the headach vanished, as if by magic. Three days afterward, an emetic brought away a small quantity by the ear; after which the patient soon recovered completely."

This is certainly a curious case, and a curious method of treatment. If M. Fournier suspected inflammation or suppuration within the cranium, a repetition of emetics seemed a singularly hazardous practice. We should be inclined to think that it was abscess in the mastoid cells, and that the matter had made its exit partly by the Eustachian tube or tubes, and partly by the external ear, having burst the membrana tympani.

8. A man received a wound by a musket bullet, which penetrated into the brain, through the frontal sinus. He recovered, in a short time, without any untoward accident, and enjoyed excellent health for four months. At the end of this period he was suddenly seized with a lethargy, and died convulsed. The ball was found in the medullary substance of the brain, half an inch above the anterior portion of the left lateral ventricle.

9. A bullet remained in the substance of the brain during a period of two years, and finally proved fatal. Another man lived fourteen years, during which time a piece of iron as large as a finger was lodged in the brain, and eventually was dislodged by the efforts of Nature.

10. Blegny relates the case of a lady who was long afflicted with severe pain in the head, accompanied by fever. At length, she lost her sight; and her sufferings were so great that she died. On examination, a stone, the size of a bean, was found at the origin of the optic nerve, in the substance of the thalamus.

11. Guersent relates an interesting case of rupture of the œsophagus, in a girl seven years of age, by vomiting. The symptoms were, fever, thirst, sighing, nausea, convulsions; the tongue thrust out of the mouth, the skin of a crimson colour. Extreme debility followed the convulsions; the face became of a violet colour, the pupils dilated, the skin burning hot, deglutition painful, respiration difficult; death, in thirty-six hours. An oval oblong rupture of the œsophagus, a little before that tube penetrates the diaphragm, was the cause of all. The right thoracic cavity was filled with a brown liquor. A stilette passed from the opening in the gullet into the stomach.

12. A man, 60 years of age, swallowed a piece of meat, which stuck in the œsophagus, near the lower end of the tube. Alarming symptoms followed. The surgeon could not displace the foreign body. He opened the median vein of the right arm, and injected four grains of emetic tartar dissolved in an ounce of water. About a minute afterward, the patient vomited up the piece of meat.

13. Dr. Latour, first physician to the Grand Duke of Berg, relates the following very interesting case. A soldier received a musket shot in the breast, and was carried off the field of battle almost dead. A tremendous hæmorrhage ensued, but it had nearly ceased by the third day. After this, the strength of the patient gradually recruited, and suppuration succeeded the hæmorrhage. Several pieces of the fractured rib now came away; at the end of three months the wound was cicatrized, and the man's health was re-established, with the exception of palpitation of the heart, which annoyed him for three years afterward. Six years after the accident, he died of a disease unconnected with the wound. M. Mausion, chief surgeon of the hospital at Orleans, opened the body. The cicatrix was deep and extensive. Pushing his researches farther, he discovered the ball encased or lodging(enchatonné) in the right ventricle of the heart, covered over, in a great measure, by the pericardium, and resting on the septum medium.

14. A remarkable ossification of the heart, by Senac, is related; but the same is published in Senac's book. "Garanjeot opened a *Jesuit*, 72 years of age, and found in the *substance of the ventricles* (dans la substance des ventricles du cœur, a curious expression) a bone four inches and a half long, and as thick as one's thumb."

15. The following extraordinary *treatment* is by M. Fournier himself. "A soldier received a shot from a musket fired close against his breast. The ball passed directly through both lobes of the lungs, entering at the left, and passing out

and of the
ill. M.
course
every
sup-
d
ed
simi-

house
under
con-

of
ed one
being
ttle
en
ed.

to the
ma of the
ent
but,

ese

ith a
ed
adulteress,
any part
This
by a long con-

tinued use of acetate of lead in injections, which remedy was advised by a medical man for a diarrhœa that resisted the usual means of cure.

22. In the year 1808, Professor Thomassini of Parma, saw a man, thirty years of age, of whom he relates the following curious circumstances. This man was habitually costive from his youth, but each year the torpor of his bowels increased. From the twentieth to the twenty-fourth year of his age, he had only one evacuation every eight or ten days; afterward, at intervals of twelve days. At thirty, the date of his examination, an interval of twenty two days took place between each fæcal evacuation. His appetite is now good, and he eats as much as two men. He becomes progressively emaciated however: his thirst is great, his urine natural in quantity and quality. No remedy nor regimen can alter the state of his bowels. Purgatives operate, but produce such debility that they cannot be persisted in. His excrements are hard, dry, in the shape of small balls. Pulse frequent, heat natural.

23. M. Rivolat has communicated to the society of Marseilles a case of constipation which lasted six months, during which time there was no alvine evacuation. The patient was restored to health afterward, and the intestinal functions reinstated.

24. M. Demet relates the case of a man, 50 years of age, who in his youth had been subject to nasal hæmorrhage, which ceased at twenty-five. From that period, he experienced incessant pains in the right side of the abdomen. At forty-three, a pain in the lumbar region was added to the former. No medicine gave any relief. He was next attacked with hæmaturia to a very alarming degree. One day, after passing much blood by urine, the patient voided per urethram a round worm fourteen inches in length, and the size of a goose quill, after which he found himself greatly relieved. The hæmaturia ceased. In the course of three months this man passed by the same channel, fifty worms of this description, but of different sizes. The patient had notice of their appearance by a sense of heat in the urinary passages, and a slight febrile movement, which went off as soon as the worms (which were dead) had been ejected.

25. Albosius relates an instance of a fœtus retained twenty-eight years in the womb. It was petrified.

26. A woman of Soigny, thirty years of age, four years married, and who had one miscarriage, became pregnant, quickened, and had a flow of fluids to the breast. At nine months, regular symptoms of labour came on; but shortly ceased. In the course of a month, she fell into a state of

[illegible] during
[illegible] covered
[illegible] or any years!
[illegible] at the
[illegible] pounds in
[illegible] enclosing a
[illegible] size that
[illegible]. It had four
[illegible] did not exhibit
[illegible] disagreeable smell.
[illegible] colour. The bones
[illegible] grown infant. It
[illegible] which membranes
[illegible]. The dissection was
[illegible] and a surgeon.
[illegible] a woman, who
[illegible] had neither um-
[illegible] was almost en-

[illegible] station,
[illegible] the
[illegible] at the
[illegible] a part
[illegible] these
[illegible] the
[illegible] the
[illegible] a case in the
[illegible] was be re-
[illegible] women. The

[illegible] who was
[illegible] I have
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] they was
[illegible] and the
[illegible]
[illegible] who had
[illegible]; and which
[illegible] a day. They

always commenced with peculiar sensation in one leg, near the lower part of the gastrocnemius muscle. A medical gentleman who was present at one of these accessions plunged a scalpel into the part affected, and came in contact with a hard body, which he dissected out, and found it to be a dense cartilaginous ganglion, the size of a very large pea, that pressed upon the nerve, which he divided. The woman had no return of epilepsy.

31. Vesper relates the case of an old man afflicted with hemiplegia, who presented the singular phenomenon of one half the body (the paralytic) completely jaundiced, while the other retained its natural colour. In the face it was very remarkable, as exactly half the nose was yellow and the other natural.

32. Morgagni saw a case of metastasis of urine to the brain. On opening the head of a man who died of suppression of urine, the brain was found inundated with this peculiar excretion.

33. Gastellier saw the matter of a large abscess near the malleolus externus absorbed suddenly, and translated to the stomach, from whence it was thrown off by vomiting.

34. Simorre (M. Percy relates the case) was born at Mirepoix in 1752. At the age of 15 he entered the army, and served twenty-one years in the regiment de Berry, where he arrived at the rank of captain. He had made the three campaigns of Corsica, and it was there that the young Simorre contracted the germ of his future fatal malady. He had bivouacked a long time on the marshy banks of a river, where the atmosphere was constantly obscured by vapours; when he, all at once, was seized with lancinating pains in the great toes and ankles. These had no sooner ceased, than he was afflicted with a severe ophthalmia, which, however, gave way in a short time. For several years the same succession of symptoms took place every spring, and without giving way to any medicine, terminated the same way. In course of time there was no interval of health; as soon as the ophthalmy ceased the pains commenced, and vice versa. The pains spread from the feet to the knees, and even to the hips; while his eye-sight became daily weaker. In 1785, Simorre could not walk without an assistant, who also served as a guide. The year following, every joint was affected synchronously, and anchylosis made alarming progress through all the articulations. He was obliged to leave the service and retire to Metz. For a long time he bore up courageously against the ravages of disease: he felt his limbs becoming immoveable; yet, deprived of the use of several members, he braved the most exquisite sufferings in attempts at motion!

The arms and *head* (les bras et la tête) shared the same fate as the feet and knees. The whole body was rendered motionless, (le corps entier fut frappè d'immobilité.) The lower jaw (we think for *head* we should read *neck*, above) submitted to the universal immobility! Then Simorre, according to his own expression, was only a living corpse! Happy, says M. Percy, had been poor Simorre, if *insensibility* had been granted this living corpse! But far from enjoying this sad repose, Simorre, who had already suffered so much, continued still the victim of the most exquisite tortures! He lay four months on a sofa, without being able to bear the removal to a bed. The attitude which he there preserved, has evidently determined that of the skeleton, as it now appears, because the various articulations then acquired a *solidity* that rendered them ever afterward useless. This new change occasioned the unhappy Simorre the most horrible torments. The least motion, the most gentle touch, caused him to cry out with dreadful anguish. He never slept for one moment while on this sofa of sorrow! At length he was moved into a bed; but there he spent two years of misery without ever sleeping! The moment that he attempted to close his eyes, every member was agitated with the most painful convulsions, on which opium had no effect. In 1792 his joints, which had become enormously enlarged, were quite unwieldy; and the articulating extremities of the bones were so increased in volume as to approach each other, and leave no shaft! From this time, the excessive torments, which Simorre had borne with a firmness worthy of an ancient Stoic, became much assuaged, and he could bear to be moved without experiencing much pain. He was lifted off the bed once a month, like a rigid corpse, but care was taken not to touch the *mould*, as it were, in which he lay, otherwise he suffered tortures in forming a new one. Though freed from those excruciating torments which he had formerly experienced, Simorre was still a sufferer. He never could sleep more than a quarter of an hour at a time; yet he blessed his stars that he was no worse, and amused himself with cheerful discourses and lively songs! During a great many years, he published an annual almanack of songs, composed by himself, and by the sale of which he supported himself in his state of misery! His ballads breathe the spirit of gayety; and in them he often depicts himself in such a manner, as at the same moment to inspire mirth and commiseration!

Simorre had a good figure and a cheerful expressive countenance. His black and curled hair covered a large forehead, terminated by fine arched eyebrows. His nose was aquiline, his eyes sparkling. "This philosophical *head* (says

M. Percy,) contained the whole soul, the whole existence of Simorre!" This unfortunate officer terminated his career of earthly sufferings in 1802, aged 50 years.

Having finished this melancholy detail, on which the tear of humanity has more than once fallen during the translation, we shall here close the article of "Cas Rares," which we hope has not been entirely devoid of interest or utility.

V.

Dublin Hospital Reports and Communications, &c. Vol. III.

[Concluded from page 102 of this Vol.]

Our readers are aware that we concluded our first analytical article of this volume with Dr. Colles's observations on the dangers of dissection. We now proceed to analyze the remaining papers in the order of their standing in the work before us.

1.—*On the Application of Leeches to Internal Surfaces.* By Philip Crampton, M.D. F.R.S.

It is generally admitted, as Dr. Crampton observes, that local blood-letting and counter-irritation are among the most powerful means which art supplies for the relief of local inflammation. It is reasonable to infer that the blood should be taken as directly as possible from the tissue which is the immediate seat of the inflammation, and that the counter-irritation should be excited in a tissue different and remote from the seat of the morbid action. Yet this principle does not seem to have been very distinctly stated or rigorously acted on by systematic writers. "The application of leeches to the skin of the eyelids, and of blisters to the temples for the relief of ophthalmia, (says our author) is clearly a violation of it, both in respect to the bleeding and the blistering; since the blood is not drawn *directly* from the tissue which is the seat of the inflammation, and the blister is applied so near to it, that the irritation which it excites, not unfrequently extends to the diseased part, where it acts as a *direct* instead of a *counter-irritant*."

Having, in many instances, observed what little impression is made upon the inflamed and turgid vessels of the con-

junctiva by the application of leeches, even in great numbers, to the eyelids or temples, and that when applied to the eyelids in particular, they frequently excited erysipelatous affection, our author was led to try the effect of applying a single leech to the inflamed conjunctiva itself, where it covers (lines) the lower eyelid. The result exceeded his most sanguine expectation, as a chronic inflammation of the eye which had subsisted for many weeks, was immediately relieved, and by a second application, was, in two or three days completely removed. This success led him to extend the practice to every case of inflammation of the conjunctiva, and he can now, with confidence, recommend this practice as affording the most powerful means of which we are possessed of subduing inflammation of the eye, whether chronic or acute, and whether affecting the conjunctiva or the more interior structures of the organ. The practice, he informs us, is now generally adopted in Dublin. Dr. Crampton subjoins a report of the ophthalmic cases received into the Royal Military Infirmary during the last seven years, as affording the best testimony that can be adduced of the safety and efficacy of the practice here recommended. It appears that during the above-mentioned period 2074 were received, of whom 5 were blind when admitted, and 9 passed afterward for pensions in consequence of lost or impaired vision. There went cured then to their respective regiments 2060 out of the 2074—an astonishingly large proportion, considering the delicacy of the organ affected. In a large majority of these cases (including every kind and degree of inflammation of the eye) leeches were repeatedly applied to the conjunctiva, under the direction of Staff-Surgeon Stringer, and our author can distinctly state that, not only in no instance was the practice attended with any inconvenience, but that in by far the greater number of cases, the application of one, or at the utmost, of two leeches to the conjunctiva, had a more decisive effect in unloading the inflamed and turgid vessels of that membrane, than the application of five times that number to the temple and eyelids. It is hardly necessary to observe that this measure is not to supersede the other proper measures usually resorted to in cases of ophthalmic inflammation. The present remedy is evidently one of considerable economy.

"With respect to the manner of applying leeches to the conjunctiva, nothing can be more simple. The patient should be placed with his back to the light, in order that the lower eyelid may be everted without exciting pain; a leech or two, rather below than above the middle size, should be allowed to fix upon that part of the inflamed membrane, which covers the tarsus, taking

care that it fastens neither upon the ciliary margin, nor upon the eye itself.* The leech fixes and fills himself in this situation much more quickly than upon a cuticular surface, and this observation is equally true with respect to all internal surfaces, for which I observed that leeches have the strongest appetency.†

Encouraged by this success our author was led to extend the principle to a surface more difficult of access than the conjunctiva—viz. to the mucous membrane of the fauces or throat, in severe cases of cynanche tonsillaris. He first made the attempt in the case of a young person who had a severe inflammation of this kind, and it was effected with less difficulty than was expected.

"A single thread of silk was passed *through* the body of the leech, at about its lower third, the ligature being made fast to the finger of the operator, the leech (held securely between the forefinger and thumb) was introduced into the mouth, and its head, directed by a probe, was brought in contact with the inflamed tonsil. The animal fixed itself to the part in an instant, and, in less than five minutes, being gorged with blood, it fell upon the tongue, and was withdrawn. The relief was immediate. The tonsil continued to bleed for three or four hours. On the following day the inflammation had greatly abated, and in a few days the tumour had completely subsided without suppuration." 229.

In the month of September, 1819, our author was called to a gentleman who had been suffering for 16 hours under a severe attack of cynanche tonsillaris, the tonsils being in contact from the inflammation, which had extended to the velum and uvula, the latter being œdematous. Two leeches were directed to be applied to the tonsil and velum, and an emetic to be taken after the leeches fell off. The leeches procured immediate relief, and on the day following, the patient was able to leave his room. He could report many similar cases, but thinks the foregoing sufficient. When scarlatina was prevalent in Dublin two years ago, he had numerous opportunities of witnessing the great relief obtained by the application of leeches to the tonsils, when the inflammation of the mucous membrane ran high, and he can, therefore, state with

---

* "In several instances I have, (from inattention upon the part of the operator,) seen the leech fix upon the conjunctiva which covers the sclerotica, but this was attended with no other inconvenience than a temporary ecchymosis."

† "In Egypt and in the Balearic islands those who drink of the stagnant waters are subject to great inconvenience and even danger, from a small leech, which attaching itself to the internal fauces, continues to suck blood, until, from the size of a horse hair, it acquires the dimensions of a common leech." 228.

confidence, that local blood-letting, in this way, when early employed, affords one of the most powerful means of relieving the most distressing symptoms of this dangerous disease.

The application of leeches to the nostrils, vagina, and other internal parts, so common on the Continent, has not yet received such notice in this country as it deserves. Dr. Crampton's paper will, in all probability, excite the attention of our brethren to the subject.*

2.—*Case of a large Coagulum of Blood and Urine extracted from the Bladder, by means of a Syringe.* By L. Byron, M.D.

It is a well known fact, that extravasated blood will coagulate at the ordinary temperature of the human body, so that when effused into the bladder, and mixed with the urine, in cases of injury or disease, one firm mass of coagulum may be formed. To a moderate extent this is not of much consequence, as it will be gradually dissolved and removed; but should the bladder be so far distended with blood as to have its office obstructed, or the function of the kidneys affected, the case becomes one of great importance, and requires the promptest measures for relief.

In the following case much benefit was obtained by the use of the syringe, although the application of the instrument was too long delayed to effect a cure.

On the 9th of November, 1820, a robust man, 64 years of age, was attacked with retention of urine, which he ascribed to hard riding during the preceding day, the air being damp and cold. Our author saw him on the evening of the 10th, 30 hours after the attack had commenced. The pain (referred to the glans penis) was excruciating, with constant desire to empty the bladder, and frequent stools with tenesmus. Three pints of high-coloured urine were drawn off by the catheter, considerable resistance being given to the introduction of the catheter by a stricture near the bulb of the urethra, and also by an enlarged prostate gland. Twenty ounces of blood were taken from the arm—the bowels were freely opened by castor oil—the warm bath was used—leeches applied to the peri-

* Since the foregoing analysis was drawn up, an anonymous writer in the Medical Repository for June last, confirms the report of Dr. Crampton, as being an eye-witness of the success of the measure recommended. He quotes a passage from Magneto, a Prussian physician, in the year 1703, which hints at the application of leeches to internal surfaces: but only the internal nares are mentioned in the passage of Magneto.

neum—an enema exhibited—and fomentations applied to the hypogastrium and perineum. In six hours after catheterism the symptoms became so urgent as to render a repetition of it necessary, by which 20 ounces of high-coloured urine were drawn off with much relief. The urine was obliged to be drawn off every day till the 15th, when, having made a little water while in the bath, he found himself so much better as to sit up for three hours, which imprudence was followed by an aggravated degree of all his former sufferings. When the catheter was introduced (with much difficulty) nothing passed but a few drops of blood. By management of the instrument, however, four ounces of urine were abstracted, followed by blood which obstructed the openings of the catheter, and rendered its removal necessary. The antiphlogistic means were rigorously used for two days, without benefit—and no urine had passed during that time. The bladder could be felt distended through the rectum—the pulse was 100°—tongue loaded—countenance expressive of much anxiety—hiccup. On the 18th, a large sized silver catheter, with one oval opening near the extremity, was introduced into the bladder, and the pipe of an eight ounce syringe was adapted to the external orifice of the instrument. By repeated quick strokes of the piston, two ounces of firm coagulum of a black colour and urinous smell were drawn off; and by repeating the operation sixteen ounces more were abstracted, affording great relief to the patient. 19th—About eight ounces of a ropy dark brown matter were drawn off. 20th—Six ounces abstracted. 21st—Some ropy urinous matter passed involuntarily. He expired on the 24th, in a state of coma, the catheter having been introduced the preceding day, but the bladder found empty. No leave was permitted to examine the body.

Our author considers it remarkable that surgical writers should be altogether silent on the use of the syringe in cases of retention of urine arising from coagulated blood in the bladder. This case clearly proves that the syringe has power over such coagula, and we have no doubt that it will be used on proper occasions by our surgical brethren.

3.—*Case of Obstructed Œsophagus, &c.* By John Howship, Esq.

Mr. Howship was summoned to an aged woman in one of the infirm wards of the St. George's Infirmary, who was said to be dying. He found her on her feet, with every expression of despair in her countenance, oppressed by the most extreme dyspnœa, and on the eve of suffocation. He was told something had stuck in her throat while eating, and on inquiring

where she felt distress she pointed to a particular part of her throat, which appeared to be opposite the upper edge of the sternum. Having patched up a temporary probang, (it is rather surprising that there should not have been such an instrument in the Infirmary) of such implements as he could procure, Mr. Howship passed it down the throat of the woman to the piece of meat forming the obstruction, and pushed this substance down nearly into the stomach, when relief was immediately obtained, it being evident that the mechanical pressure on the trachea had been the sole cause of the severe symptoms.

4.—*On a Paralytic Affection of the Superior Extremity.* By Robert Healy, M.B.

This affection, our author has not seen described in books, and believes it to be unconnected with any organic disease of the brain or nervous system. It attacks persons of all ages and both sexes. Prior to the assault the patient, generally speaking, is in the enjoyment of good health, consequently is much surprised to discover, on waking from a sound sleep, a total loss of power of one hand, and what is remarkable, the loss of power is described as extending to the middle of the fore-arm—in some cases to the elbow, accompanied with a sense of great numbness. No other cause could be assigned by the patients than the probability of pressure on the nerves occasioned by lying with the head resting on the arm. Most of the usual remedies for palsy had been found ineffectual; but the disease invariably yielded to electricity strongly applied so as to draw pungent sparks from the diseased arm or hand.

5.—*A Case of Perforation of the Perineum.* By John C. Douglass, M.D.

Every one is acquainted with the common lacerations of the perineum which occasionally take place during the expulsion of the fœtus, even when the greatest care is employed. Indeed we are among those who believe that "supporting the perineum" as it is called, has little effect in preventing the accident, which occurs as often when the hand is applied as where there is no such artificial support. But be that as it may, the accident here described is of a more rare occurrence, and of a different kind. It has been termed by Denman a perforation or bursting of the perineum, and, according to Dr. Douglass, instead of being in the centre, it is usually situated towards one side of the perineum, involving in its necessary amplification the labium pudendi of the same side, with other parts, as will be shown in the following case:—

A woman, aged 23, in her first labour, was in the lying-in-hospital on the 24th January, 1810. She was attended by a raw young pupil, and notwithstanding the previous tranquillity, the pupil and nurse were surprised and alarmed to hear the woman utter a shriek expressive of unusual suffering. Dr. Douglass was therefore quickly summoned, and found that the head of the child had protruded—but instead of being in the usual position, it was closely applied to the inner and posterior part of the patient's left thigh. While reflecting on these circumstances, another pain protruded the child's body. On viewing the parts, a shocking laceration was discovered, having the appearance of a large wound inflicted by external violence. Although denominated a perforation of the perineum, yet the opening was only partly comprised in the perineum laterally, partly in the left labium pudendi, but chiefly in the integuments of the thigh. Our author found that the placenta obstinately followed the course which the fœtus had pursued.

Notwithstanding this extensive injury, no extraordinary activity of after-treatment was rendered necessary to obviate febrile action, and the woman ultimately recovered by judicious local treatment of the wound. Dr. Douglass is of opinion that, in this case, the head of the fœtus bearing upon the cervix uteri (the os uteri perhaps not sufficiently dilated) burst through the former, and through the vagina, passing completely behind the latter, at or near to the sacro-iliac synchondrosis.

6.—*Cases of Jaundice, with Dissections.* By Henry Marsh, A.B. M.D.

Jaundice, as our author observes, is produced by several different causes. In the majority of instances, however, its origin may be traced to some obstruction of a mechanical nature, as gall-stones, tumours, indurations of the liver, preventing the free egress of bile from the proper organ to the duodenum. These cases have been amply described and discussed by writers of all kinds: but there certainly are many cases of jaundice in which these mechanical obstructions are not apparent after death. It is still a question at the same time, whether or not some actual obstruction did take place in the biliary ducts during life, occasioning the suffusion of bile on the surface. That spasmodic constrictions of the bile tubes do sometimes take place we have had *post-mortem* evidence; and that the same should take place during life, and yet become effaced by death, we cannot rationally doubt, from analogy and fair reasoning.

The object of this paper is to bring forward instances in which icterus is connected with derangements of other and distant parts, as the brain and mucous membrane of the intestines. The first case which arrested our author's attention was one already published in the first volume of the Dublin Hospital Reports, by Dr. Cheyne, from Dr. Marsh's notes. The subject was a wretched young woman, broken down by disease and mercurial courses in the Lock Hospital of Dublin. She was seized with phrenitis, (while labouring under jaundice,) and died quickly.

"The condition of the large intestines in this female was very remarkable; the quantity of knotted fæces which occupied the intestinal pouches was almost incredible; and this their condition the more claims attention, when it is known that alvine evacuations had been regularly maintained during the whole time of the residence of this patient in the hospital. These were fluid and watery stools; such as are frequently carried off by medicine, whilst scybala in abundance remain behind. That this is often the case every physician is aware: but I believe it is not generally known that this state of the large intestines is sometimes a cause of jaundice.* While pursuing the dissection of the body of this female, the following curious appearance was exhibited: bile, mixed with a substance resembling curd, flowed in considerable quantity from the lactiferous ducts; the mammæ appeared full, and by a very moderate pressure there were obtained several ounces of a tenacious yellow substance, bearing all the visible characters of pure bile; all the serous membranes, as well as the skin and adnata, exhibited likewise the bilious tinge." 263.

We cannot certainly admit that bile or any other secretion can appear in the circulation anterior to its elaboration in its proper organ; but we have strong proofs that a fluid, when once secreted and obstructed in its natural outlet, may become absorbed; as urine, for instance, has been deposited in the ventricles of the brain, or thrown off by the skin or stomach. Of the latter fact our author has lately met with a well attested instance. In like manner the bile having been secreted and prevented egress by the biliary duct, is absorbed, and appears in the skin, urine, tears, serous membranes, and brain. Our author received the following communication from Dr. Cheyne lately.

"'Last summer I visited a lady in jaundice with the following

* "Of this fact I was then ignorant, nor was it until long afterward, having met with a similar case, that I was led to the conclusion, that a long continued obstruction in the large intestines becomes occasionally the immediate cause of icterus. The symptoms of the case which led me to adopt this opinion I shall presently relate."

symptoms:—Skin and urine deeply charged with bile; slight anorexia; languor; stools pretty natural, as were the tongue and pulse. The indisposition was so slight that the individual in question had no intention of sending for a physician, till she discovered that the bilious tinge of her skin was imparted to her linen. To satisfy my doubts, she repeatedly wiped her face with a cambric handkerchief, which thereby acquired a saffron colour. Her liver was not sensibly affected in respect of enlargement or tenderness. She speedily recovered; indeed her recovery might be termed spontaneous, nothing having been prescribed for her but some mild purgative medicine. She was directed to use light animal food, to abstain from wine, and avoid fatigue." 269.

We shall now proceed to notice the case which our author has brought forward in illustration of jaundice from causes situated in the large intestines—the sympathetic connexion subsisting between the functions of the skin and liver being also remarkably exemplified in the same case.

An Octogenarian, of very irritable and anxious temper, long troubled with scrotal hernia and hydrocele, became affected with jaundice, for which he was treated by Drs. Perceval and Falloon, and the disease was removed. Several months afterward our author was suddenly summoned to the old gentleman, in consequence of a discharge of blood from the rectum. He had complained of a dull heavy pain in that region for some time previously, especially when at stool. When seen the skin was yellow, harsh, and dry—the adnata deeply tinged—the pulse full, intermitting, but not quickened—the tongue black, dry, and thickly coated—urine scanty and high-coloured—vertigo—incoherence—somnolency. He was sitting on the night-chair much alarmed. The matter evacuated appeared to consist of pure, dark-coloured, clotted blood; and there were at the bottom of the vessel some hard round fæces. Suspecting the cause both of the hæmorrhage and icterus, our author ordered him two grains of rhubarb, the same of scammony, and the same of sulphate of potash, every two hours, till the bowels should be well cleared. By the following day a large vessel had been more than half filled with scybalæ, which were tinged with blood. A continuation of the same treatment removed large quantities of these hardened fæces, and with them the jaundice and all the other bad symptoms.

Whenever these accumulations were reproduced, the jaundice reappeared, and with it loss of memory, drowsiness, and incoherence. On one occasion, some slight paralytic affections accompanied the other phenomena, and were removed with them by the evacuating medicine above mentioned. By proper diet and aperient remedies the health

was restored, as far as could be expected at his advanced age.

"In this case," says our author, "we are furnished with another instance of the connexion which exists between obstruction in the large intestines and jaundice; and also of the connexion which may be traced between this latter symptom, and an excited and deranged condition of the cerebral functions. Here, too, as in the former case, aperient medicines were daily administered; fluid fæces, slightly tinged with bile, regularly evacuated; and yet the bowels remained loaded with solid matter. I have remarked, in dissection, that in those pouches in which scybalæ are lodged, the mucous surface, against which they rest, is frequently reddened and vascular. The irritation of these hard substances accounts for the hæmorrhage, which in this old gentleman had been attributed to internal piles: it seems to me also that the loss of blood added much to the efficacy of the purgative pills, which probably would not otherwise have so effectually unloaded the bowels." 273.

We are disposed to think that the obstruction to the free course of the bile, in the foregoing and in analogous cases, is mechanically caused by impacted fæces in the colon, pressing upon the ducts of the liver.

Our author lays it down as a good rule, for the propriety of which we can vouch, that old people ought to be very abstemious if they wish to preserve a clear intellect. In old age the digestive, like all the other functions, become weak, and exercise, so necessary for due action in the chylopoietic viscera, is almost annihilated. Hence the necessity of proportioning the ingesta to the digestion and exercise.

A strong muscular man, 40 years of age, was admitted into one of the fever wards of the House of Industry, during the prevalence of the epidemic fever, deeply jaundiced—tongue perfectly dry and nearly black—pulse natural. He had a wildness in his countenance—declared he was quite well—and wished to quit the hospital. Arteriotomy and a purgative were ordered, but he obstinately refused all medicines, soon became furiously delirious, and died in convulsions the same night. Permission was not granted to open the body; but our author thinks that this is another instance of jaundice, terminating fatally in cerebral and nervous affection.

A young girl in the Lock Hospital, who had got cold while under the influence of mercury, was suddenly told of the death of an uncle, the only man who had shown her any kindness. She immediately became universally jaundiced, and soon afterward febrile symptoms appeared. She was sent home, and continued feverish for some days, as also jaundiced. At length quite suddenly she became affected

with alarming symptoms, as stertorous breathing, partial insensibility, great pain in the abdomen. As night approached she could hardly be restrained in bed—she screamed violently, and was constantly agitated. At 12 o'clock of the succeeding night she expired in convulsions. On dissection, which was performed a few hours after her death, some congestion was found in the vessels of the brain, but without any effusion. The substance of the liver was deeply tinged with bile, its structure being unaltered. The gall-bladder was contracted, containing some dark green bile—a probe could not be passed through its duct—the other ducts unobstructed. Around the orifice of the ductus communis in the duodenum the mucous membrane was highly vascular—the fluid in the duodenum was untinged with bile. There was some increase of vascularity in the mucous membrane of the stomach—small intestines remarkably contracted in several places. "This," says our author, "is another decisive instance, wherein jaundice, caused by strong mental emotion, terminated in a violent and fatal affection of the brain."

Dr. Colles related to our author a somewhat similar case that fell under his care. A young gentleman, after going through an alterative course of mercury for the cure of a chancre, suddenly became deeply jaundiced, in three days after which he was seized with delirium, followed by repeated convulsions, which terminated in death. The most accurate examination of the body did not disclose any appreciable change of structure. The external and internal parts were much tinged with bile.

Our author quotes some analogous cases from Morgagni, and then proceeds to make some reflections. He properly remarks, that although in ordinary cases of jaundice there appears little or no cerebral disorder, yet that under certain circumstances, and in certain conditions of the nervous system phrenzy may be excited, either by the bile conveyed to the brain, or in consequence of the sympathy which exists between the cerebral and biliary systems. In practice, therefore, we should be aware that an icteric patient, who has a weak and irritable nervous system, must be closely looked after, lest alarming symptoms unexpectedly arise, and lest we should be unguarded in our prognosis. The reciprocal influence of the brain on the liver, and of the liver on the brain, has long been observed and acknowledged. The following case illustrative of the fact that, in affections of the brain, the occurrence of jaundice indicates the rapid approach of dissolution, is very interesting in many points of view.

A gentleman, 36 years of age, muscular and well formed,

had been intemperate in his youth, and had undergone several courses of mercury for syphilitic complaints—was habitually subject to headachs, especially after any excess in drinking. He was bilious, nervous, and irritable.

On the 23d of April, he had a fall on his side from a scaffold, about eight feet high, and was slightly stunned, but apparently not injured. In the course of the evening he complained of confusion in his head, which continued more or less till the 2d of May, when he had slight rigors and general indisposition. On the 4th he dined with a friend in Dublin and drank moderately. Next day he rode out into the country, where he was suddenly seized with violent pain in his head darting from temple to temple, and from the occiput down to the sacrum. On the 6th, there was an entire remission of the pain, but it returned at night. 7th, the same remission and exacerbation. 8th, was leeched plentifully, and purged freely. No relief ensued, and he was sleepless. On the 9th our author first saw him. The pain was in his temples and forehead—he appeared much agitated—complained of total sleeplessness—sighed occasionally—moaned often—pulse natural—skin cool—bowels free—tongue very white and moist. In the evening the pain became so intense that he requested to be bled. As his pulse had risen in strength and frequency, and as he was in constant agitation, a vein was opened, and he was allowed to bleed till he fainted, which produced considerable relief. The pain returned, howeve r, shortly afterward, upon trifling exertion, and with it the restlessness. He took twenty drops of laudanum, and slept two hours, when he awoke complaining of much pain, his countenance and manner expressive of unusual wildness. His pulse was full and hard, not frequent—skin hot. He was again bled, but syncope threatened before eight ounces of blood were taken. He was materially relieved, and passed a tranquil though sleepless night.

"10th. Symptoms very alarming; pain intense, seated in the forehead, temples, and at both sides of the head, increased by the least exertion, even by the effort of speaking. When unexpectedly addressed, or touched with any cold substance, he was thrown into a state of great agitation: he complained of intolerable pain; could not breathe freely, a sort of convulsive struggle or catch affected the respiratory organs; his sighs were deep and frequent. Pulse full, and hard, and 92 in a minute: tongue loaded with a thick white secretion. Under these circumstances, bleeding was again resorted to. Twenty ounces were quickly removed; there was but a slight tendency to syncope; the symptoms were materially mitigated, but by no means subdued. At ten at night he was nearly in the same state as in the morning. In his extreme restlessness, he removed

the bandage from his arm, and bled copiously. The relief was instantaneous. He passed a quiet though sleepless night. Ice was applied to his forehead, and every fourth hour a cup of the following mixture given:—℞. *Aq. ferv.* ℥xii. *Crys. Tart.* ʒi. *Ant. Tart. gr.* i. *Sac. albi* ℥ss. ℳ." 286.

11th. He appeared better, but there was an evening exacerbation. 12th. Still better; but at midnight an exacerbation of pain with restlessness. Sixteen leeches to the head, which brought great relief. Heaviness and numbness in the head were now the only symptoms complained of; but he could not sleep. 13th. Unceasing loquacity, peevishness, and irritability—at night his intellect deranged for the first time. 14th. Severe pain in the right temple. Ten leeches applied, which entirely removed the pain, but rendered him very faint. Now came on muttering and incoherence, grinding of the teeth, heaviness about the eyes, impaired memory. His tongue was clean, skin cool, pulse natural. 15th. Stupor —remarkable change of countenance, being of a deep yellow tinge—night sleepless. 16th. Took food with pleasure—upper half of the body covered with a profuse perspiration of a peculiar and heavy smell—seized with convulsions, and expired at 4 P. M.

"DISSECTION,—Performed twenty-four hours after death. On raising the dura mater, a thin layer of coagulated blood, deposited between the arachnoid membrane and pia mater, extended on each side over a considerable space of the anterior lobes of the brain. A similar appearance was observed at the superior and posterior parts of the brain, under the parietal bones, and reaching downward to the occipital. Blood was likewise effused between the same membranes at the base of the cranium, and over the surface of the cerebellum; a layer of blood was also deposited between the convolutions in every part of the brain. The lateral venticles with their cornua, the third and fourth ventricles, were entirely filled with one large, continuous clot of dark blood; connected with this, another, as large as a walnut, occupied the inferior part of the left anterior lobe, into which a ruptured vessel, capable of admitting a small injecting pipe opened. The quantity of coagulated blood in the interior of the brain amounted to several ounces: we were allowed to examine only the head." 289.

There is, Dr. Marsh observes, a form of jaundice which appears in hysterical women, owing its origin, probably, to some commotion and disturbance of mind. The symptoms, at first, would lead to the idea that the patient laboured under a violent attack of bilious colic, or that a gall-stone was impacted in the ducts. Sydenham has given a description of this disease, as attacking women of a lax and gross habit of body, and such as have laboured under a hysteric affection,

or been much reduced by difficult labours. "A pain, he, not less severe than that of the iliac passion, is felt region of the stomach, or somewhat lower, which is ceeded by copious vomitings of matter, sometimes sometimes yellow. To these symptoms are added a d sion of mind, and despair exceeding that in any other di After a day or two the pain subsides, but returns with bated violence in a few weeks. It is accompanied some with a remarkable jaundice, which spontaneously subsi a few days. The least commotion of the mind, whethe anger or fear, brings back the pain." *Sydenham.*

"In the cases," says Dr. Marsh, "of this complaint which seen, serious mischief was done by mistaking the attack, in stance for colic, in another for gall-stones. Where hysteria suspected, the urine should regularly be observed: its limp copious secretion will often at once detect the real nature affection, and prevent all the injury resulting from needlessly and vigorous treatment. The hysteric colic and jaundice are subdued. A few leeches, fomentations, moderate purgation, fo by opiates and tepid baths, will relieve the urgent symptoms in the cases which have fallen under my observation, cha scene, regular and wholesome diet, exercise on horseba mild aperients, have prevented their return. In these cases t siding of the pain was always accompanied with extrication charge of flatus, either upward or downward. It is singular t berden, so accurate an observer, should deny that there is disease as jaundice connected with hysteria, and blame Sy for having supposed its existence. By him the symptoms ferred to gall-stones: indeed, in what he has written on the he seems hardly to contemplate any other cause of Icterus."

Although we do not agree with Heberden in supposi all these cases depend on gall-stones, yet we firmly that either a spasmodic constriction of the gall-ducts, obstruction of them by viscid bile exists at the tim forms the leading proximate cause of the whole phen

Our author next proceeds to the connexion subsisti tween a jaundiced appearance of the skin, and a morbi dition of the mucous membrane of the bowels.

Here, as in the form just described, dissection leaves doubt respecting the immediate cause of the jaundice. affection of the mucous surface of the bowels, our aut serves, is constantly overlooked. Its symptoms are o scure, and it may, he thinks, exist to a considerable yet leave no trace of such existence after death. Thi wonderful when we consider that a recent inflammation external skin seldom retains in the dead body any e of its previous existence. In such delicate structu

as the meninges of the brain, violent excitement may go on during life, without leaving cognizable traces on dissection.

"The usual cause of that form of jaundice, the consideration of which will occupy the remaining pages of this paper, is the ingurgitation of cold fluids into the stomach, when the body is much heated; or sudden and reiterated exposure of the person after severe exercise, to cold. In all such cases, the disease is not confined to the liver and its ducts; but the mucous surfaces of some part, or all the intestinal canal, are involved in the same morbid action. It is even probable that, in these surfaces, disease first establishes itself, for the patient is usually ailing for many days before jaundice appears; and the symptoms of which he complains are among the number of those, which indicate commencing disordered action in some part of the villous coat of the bowels." 294.

Our author minutely details a long case of jaundice terminating in dysentery, of which we can only give the more prominent features.

A labourer, ætat. 55, strong and muscular, had been thrown into a profuse perspiration by severe labour, and in this state drank repeated draughts of cold milk. During the next and several succeeding days, he felt cold, chilly, and weak, and presently became much jaundiced. His appetite was now gone, and his thirst insatiable. In a fortnight after the drinking of cold liquids, our author saw him for the first time, and noted the following phenomena:—viz. occasional syncope—prostration of strength—privation of sleep—dimness of vision—depression of spirits—palpitation—dyspnœa and cough—constriction at the epigastrium with great tenderness there—nausea on drinking cold fluids—great thirst—tongue moist and white in the middle—skin and eyes of a lemon colour—urine without sediment, but tinging linen yellow—fæces white—pulse 60, soft and full—frequent and free evacuations from neutral salts, followed by considerable abatement of the symptoms. This was on the 24th July. On the 29th, sixteen leeches were applied to the epigastrium in consequence of much pain there, and then mercurial ointment rubbed on the part, a drachm every day—sulphat of magnesia was ordered to keep the bowels open. These produced much relief. On the first August, the appetite was craving—the thirst abated—skin lighter—urine very bilious—skin moist—great debility. 2d August, mercurial fetor—costiveness—slow pulse—purgatives operated. 4th—pain in the temples and forehead—stools darker. 6th—Occasional rigors—white fæces—pain in epigastrio—loss of appetite—periodical pains in the head. Blood taken from the arm—leeches to epigastrium—diminution of the urine—pain in the lower belly, which was removed by an enema and warm fomentations.

12th—Stools still destitute of bile—eyes and skin deeply tinged—thirst urgent—great flatulency—much comfort from the tepid bath. September 3—Stools still clay coloured, and now tinged with blood, becoming very frequent, with pain and tenesmus. Leeches to the abdomen—warm fomentations—a blister—repeated doses of Dover's powder. The dysenteric symptoms having disappeared, he continued for some days in an improving state apparently, when rather suddenly, towards the end of September, dysentery returned with extreme violence, the stools being dark-coloured, fetid, and full of coagulated blood, the jaundice being still unabated. In this state of suffering he lingered till the 8th October, when he expired. We shall give the dissection in the words of our author.

"The following morning, at nine o'clock, the examination of the body took place. The body was very much emaciated: a deeply yellow tinge pervaded the whole surface. The peritoneum, in every part, was coloured with bile; in its cavity there was a deposition of yellow fluid, in which flakes of lymph floated; the liver was shrunk, and retracted considerably within the margin of the ribs; the stomach was distended, and presented externally a very vascular appearance. The peritoneal coat of the large and small intestines was in extensive patches, vascular, opaque, and thickened. The vessels of the mesentery crowded together, and dilated. The cardiac portion of the internal surface of the stomach presented no unusual appearance; on approaching the pyloric extremity, the inner membrane was highly vascular, and a large patch was quite black. On laying open the duodenum, its surface presented a still more vascular appearance. This vascularity was extended along the whole tract of the small intestines, and was particularly evident upon the surface of the Valvulæ conniventes. The contents of the small intestines were every where mixed with bile. The ileum, near the caput coli, presented a highly inflamed appearance, and its contents were of a chocolate colour. The whole internal surface of the caput coli was deeply ulcerated, and covered with purulent matter; its coats were thickened: this gut was full of black, foul, and rather solid fæces, mixed with clots of pure blood. The colon and rectum were ulcerated and thickened in numerous patches throughout their whole extent. Wherever the ulcerations were most extensive, there the contained matter was most solid, foul, and black; clots of black blood were every where mixed with the contents of the large intestines. The liver was diminished in size; fleshly excrescences grew from its convex surface; to the touch it was remarkably flabby and inelastic; its vessels very much dilated; its colour at every section intensely yellow. The gall-bladder contained several ounces of dark green bile; its duct at the superior part was contracted to a very small size. The remaining portion of the cystic duct was considerably dilated; as were the hepatic and common ducts, which were unobstructed. Wherever the liver was cut, green bile flowed from

the enlarged ramifications of the hepatic ducts. The spleen was shrivelled, and possessed less tenacity than the crassamentum of healthy blood. The kidneys were flaccid and small, and all their vessels dilated. The viscera of the thorax were carefully examined, and did not present the least morbid appearance. The dura mater was yellow; some (but very little) fluid in the ventricles; the brain remarkably firm and healthy. Of the contents of the cranium the dura mater alone was discoloured." 299.

We have invariably remarked that the *function* of biliary secretion was disordered in dysentery; and the above case offers no exception to the general rule. The liver, in fact, was organically affected; and that its function was greatly deranged appears, even by dissection, as the passage which we have marked in italics proves. We conceive also, that the hepatic affection long preceded the gastro-intestinal irritation and inflammation—and that the depraved biliary secretion was a principal cause of the latter disorder. The deeply florid tongue, the unquenchable thirst, the extinguished or canine appetite, the prostration of strength, the rapid emaciation, and, lastly, the dysentery, were all symptoms of the gastro-intestinal phlogosis. The probable immediate cause of the icteric suffusion in this case, was (thinks our author) an inflammation of the lining membrane of the ducts, whereby they were thrown into a state of spasmodic contraction. This reasoning is illustrated by a case and dissection extracted from Dr. Hunter's Treatise on Army Diseases. A phthisical patient became affected with jaundice a few days before his death, and on dissection there were found marks of superficial inflammation all over the liver. The gall-bladder was full, but no bile could be squeezed out of it. Bile of a thick and ropy consistence was found stagnating in the ductus communis, as also in the hepatic ducts. Dr. Hunter asks—"*did the inflammation in the neighbourhood of the ducts and perhaps extending to them, excite such contractions in them as obstructed the bile?*" We think it highly probable; and, indeed, that in most cases of bilious fever the icteric suffusion is caused in this way.

"If the opinion be correct, that this form of jaundice (I mean that arising from cold applied to the heated body) is generally, or perhaps uniformly, complicated with a highly excited and sometimes inflamed state of the mucous membrane of the bowels, it must follow of necessity, that the plan of cure should be directed, not so much to the condition of the liver, as to that of the neighbouring viscera. In all cases of what may be termed recent or inflammatory jaundice, in which, combined with the other symptoms, there is tenderness and fulness at the epigastrium, the treatment should be primarily and essentially antiphlogistic; bleeding, general and local;

saline purgatives largely diluted; general and local tepid baths, should uniformly precede the use of mercury. I have seen cases of this kind, wherein the mercurial treatment had aggravated every symptom, yield at once to a bleeding from the arm, followed by the application of a few leeches. This I have observed, even where the pulse was not accelerated." 303.

Here our author introduces several additional cases of this form of jaundice, some of which were accompanied with purpura, on which, and several other diseases, Dr. Marsh makes many judicious remarks and ingenious comments. The cholera morbus, for instance, engages Dr. M.'s attention; and he very properly observes that, as it chiefly prevails during the autumnal season, when the alterations of heat and cold are sudden and frequent—and as it is often produced by drinking cold liquids when the body is heated, so "it owes its origin less frequently than is imagined to the nature of the food taken into the stomach." The symptoms, he *thinks*, sufficiently indicate the presence of morbid action in the mucous coat of the bowels.

"In this disease, the functions of the liver are so much deranged, that all the symptoms have been traced by the older writers to the irritating effects of a redundant secretion of acrid bile. That the hepatic functions are greatly deranged, is certain; but that the symptoms are caused by the action of the bile upon the mucous surfaces, is now, I believe, acknowledged to be an erroneous opinion. In treating cholera morbus, the supposition that bile is the cause of all the mischief, has lead to the adoption of remedies ill calculated to check the progress of this formidable malady. The patients have been deluged with diluting drinks; and even emetics and cathartics have not been withheld. When it is considered that there is a cold stage, antecedent to that of re-action and excitement; and that the vomiting and purging exist for hours before bile appears in the matter ejected;—it must be evident that there is a highly excited state of the mucous surfaces, wholly independent of the biliary secretion. The cause of the cholera morbus, the symptoms, and the appearances after death, evince that the disordered action affects both the intestinal mucous surfaces, and the liver." 313.

Our readers are aware that we have long held this doctrine, and Dr. Marsh has liberally given us credit for priority upon this subject.

There is yet another form of disease, remarks Dr. Marsh, the seat of which is in the villous coat of the stomach and small intestines—this is the infantile remittent, or, as it has been vulgarly called, "the worm fever" of children. Its characteristic symptoms, he observes, if closely analyzed, will be found to point to the mucous surface as the original seat of morbid action.

"Irritation at the extremity of this membrane, as at the nose, lips, eyelids, or verge of the anus, is a very constant symptom: the state of the skin, urine, appetite, and bowels, the defect of nutrition, with other symptons, all lead to the same conclusion. In almost every instance of the disease the symptoms do likewise afford evidence of disorder or disease in the hepatic system. The tendency of affections of these membranes to assume an intermittent or remittent type is a very curious circumstance, and one of which no satisfactory explanation has yet been proposed. Inflammation of the conjunctiva of the eye and lids possesses occasionally a distinctly remittent character. The symptoms of an intermittent are now and again produced by irritation in the urinary passages. Affections of the mucous membranes often run a very protracted course, and yet leave behind no material change of structure." 317.

In the "bilious disorder" of this country, now so universal among all classes of society, the derangement of function, our author thinks, and with reason, is not restricted to the liver. It takes a wider range, and includes within the sphere of morbid action, those important viscera situated in the vicinity of the biliary organ, and from whence the nutritive particles which supply the body proceed.

We have thus given a very copious account of Dr. Marsh's paper, which is one of the most important and interesting in the volume under review

7.—*A Case of Diseased Heart, with Observations.* By Thomas Cuming, M.D. &c.

The subject of this case was a man 38 years of age, of spare habit, and appearing, 6th Dec. 1820, slightly emaciated by illness. He stated that about the end of September of the same year, he was seized one day with so severe a pain in the middle of the sternum and in the bend of the left arm, that he was forced to go into a public house, where the symptoms subsided in twenty minutes. While walking homewards he was again seized in a similar manner, but he persevered in walking off the fit. Three days afterward he had a recurrence of the paroxysm. From this time till our author saw him, he had generally two attacks daily, at 2 o'clock and at 5, attended with precisely the same symptoms, and generally lasting about an hour. In the intervals, as well as in the paroxysms, the patient had strong pulsation of the heart and large arteries, so as to be visible to a considerable distance. On applying the hand to the left side of the chest, the pulsation was felt all over that region, and downwards to below the umbilicus. The face was somewhat bloated, and there had been some œdema of the ankles for a few days—urine scanty and high-coloured—some thirst. Could lie easier on

the right side than on the left—subject to flatulence since his illness*—and to an aggravation of a constitutional cough. Before Dr. Cuming saw him he had been twice bled, and blisters had been applied to the chest. He had taken purgative medicine, and draughts composed of digitalis, hyoscyamus, laudanum, and antimonial wine. The bleeding and blistering had relieved his cough, but no impression had been made on the paroxysms or pulsation. Rigid abstinence, quietude, aperients, and blisters were ordered, but no favourable change occurred—on the contrary, from the 7th till the 23d of December, he had seldom less than two, frequently three or four paroxysms throughout the night, and occasionally as many throughout the day.

"The pain of the arm was at times so excruciating as nearly to induce delirium; and whenever this was the case I observed he had but little corresponding pain of the sternum. On some occasions he had slight pain of the arm without any pain of the sternum. During the paroxysms the face was generally pale, and the body bathed in perspiration. Frequent attempts to expel flatus from the stomach generally attended each paroxysm, and he always felt considerably relieved after its expulsion. Although the pulsation was always strong, and communicated a vibratory motion to the bed-clothes, it was more violent during the paroxysm. His sufferings during the paroxysm were not aggravated, as in the case of angina pectoris, when he walked about; and when seized with it at night he was always obliged to sit up immediately in bed." 323.

Friction and grasping the arm relieved the pain on one or two occasions; and frictions to the chest generally brought some mitigation of the pain there and in the arm. Opiates failed to relieve the paroxysms.

On the 23d December, some soreness of the gums took place from calomel he had taken combined with ipecacuan for some days previously. His urine increased in consequence, and the œdema diminished. The paroxysms continued as before. From this time, however, till the 1st of January, they were less frequent and severe than hitherto—particularly the pulsation, from which he was sometimes entirely free. On the evening of the last mentioned day, he was seized with a violent fit of coughing, which lasted without intermission till two o'clock the following morning, obliging him to sit up in bed all that time. From this hour till 7, he laboured under incessant dyspnœa, with gasping for breath. For several

* Flatulence is a remarkable and a very constant attendant on many organic diseases of the heart, especially on angina pectoris. It is still more inexplicable than the pain in the arms and some other phenomena accompanying this melancholy class of maladies. *Rev.*

nights after this, he was obliged to sit propped up in a chair, on account of a sense of impending suffocation. From this time till the 13th of February he fluctuated, sometimes a little better, sometimes worse. He died on the morning of the last mentioned day. He was examined in the presence of several eminent medical gentlemen.

"The right side of the chest contained from 6 to 8 oz. of fluid. The right lung was adherent to the parietes at the lower and back part by strong membranous bands. These adhesions, it was, however, evident, were not of recent formation. The lung itself was thickened, and its texture more than usually solid. When cut into, a frothy mucus flowed out. The left side of the chest was apparently healthy. The pericardium was considerably enlarged, and contained about four ounces of fluid. It was not thicker than natural; but on the external surface its vascularity was increased, more particularly towards the left side. The heart was fully double its natural size. The external surface of the left ventricle was highly vascular, and towards the base of the heart presented a granulated appearance. This appearance did not extend to the right ventricle. The coronary arteries were larger in proportion to the size of the heart, but in every respect healthy. The right cavities were increased in size, but otherwise their appearance was natural. The great increase of size was in the left ventricle, whose cavity was so much enlarged, as to admit of the hand being turned round in it with facility. The parietes of the left ventricle were thinner than natural, and the musculi pectinati more projecting.

"The tricuspid and mitral valves were perfectly healthy, as were also the semilunar valves of the pulmonary artery. The valves of the aorta presented a shrivelled appearance; their margins were irregular, thickened, and of a cartilaginous consistence. When stretched to the uttermost, they did not reach within the tenth of an inch of the openings of the coronary artery. The aorta, throughout its entire course, was perfectly healthy, with the exception of a small opaque spot near the heart, which in reality could not be called a morbid appearance." 327.

Nothing worthy of notice appeared in the abdomen, excepting the great distention by flatus of the stomach and bowels.

Our author observes, that the violence of the heart's action, conjoined with a strong, full, vibrating pulse, left no doubt on his mind that the case was "active enlargement of one or both ventricles of the heart." He was, therefore, not a little surprised "to observe a condition of parts the very opposite of that which he had been most confident of finding." When Dr. Cuming has attended more to cardiac diseases, he will find that it is not so easy a matter to distinguish, *by symptoms*, that enlargement of the heart which is attended with thickening of its parietes, and that which is *not* attended with thick-

ening. In extreme cases, indeed, the diagnosis will not be very difficult. For instance, if the cavities are greatly enlarged and the parietes greatly extenuated, we will not have such a state of the pulse as described in the case above; but where the heart is double the natural size, and yet where the parietes are somewhat thinner than natural, we may, and very often will have a preternatural action of the organ, manifested by the pulsations in the chest and in all tangible arteries. Such was the case in Dr. Cuming's patient. We do not look upon the heart as *passively* enlarged by any means—on the contrary, we consider it a case of hypertrophy of the organ, although the parietes were not thickened. The action of the heart too was that of hypertrophy. This case shows us, as we stated in our last volume, page 810, that "the train of phenomena presented in angina pectoris is produced by various and often dissimilar affections of the heart." The patient of Dr. Cuming's evidently laboured under what is commonly denominated angina pectoris. The infarcted state of the lungs was a consequence, no doubt, of the embarrassed action of the left ventricle, on account of the imperfection in the ventriculo-aortic valves.

8.—*A Case of Fatal Hæmorrhage, Six Weeks after Ligature of the Carotid Artery.* By J. W. Cusack, M.D.

A young hypochondriac attempted suicide by inflicting a deep wound in his throat with a knife, on the 26th August, 1820, and was immediately conveyed to Stephen's Hospital, where our author saw him a few minutes after admission. He was recovering from a faint, his breathing laborious, and his pulse scarcely perceptible. The wound extended from the sterno-mastoid muscle of the left side, crossing the centre of the thyroid cartilage, to the angle of the jaw on the right side. The thyroid cartilage was almost completely cut through. The sheaths of the large vessels on both sides of the neck were exposed, and the pulsations of the carotids visible. The parts were dressed superficially, but at 7 in the evening, blood gushed from the right side of the throat, and the patient fainted before the blood could be restrained. Our author had no doubt that the carotid or one of the large branches was wounded. A ligature therefore, was applied to the trunk of the vessel, and also to the thyroid artery of the opposite side, which was exposed and had its coat injured. On the 24th, the patient was in a feverish and bad state, the wound looking unhealthy, and a slight hæmorrhage having taken place. Bleeding and digitalis removed these symptoms, and the patient appeared to be doing well till the 16th of September, when he became harrassed with a pectoral affection, which

however, subsided before the 1st of October. By the end of the second week in this month the wound had closed, except a small opening, about three lines in diameter, in the thyroid cartilage. On the 15th of October he complained of pain, and a slight fullness about the mastoid muscle—the wound looked unhealthy, and fever was present. Saline purgatives —poultices—quietude—abstinence. At four o'clock on the 15th blood suddenly gushed from the wound, and was partially restrained by pressure. When Dr. Cusack saw him it was evident that the carotid had burst, and it was determined, in consultation, that the vessel should be secured nearer to the sternum. This was rendered difficult by the close adhesions which had consolidated the cellular texture. After exposing the sheath of the vessels about half an inch above the origin of the subclavian artery, our author made an opening into it; but, after passing the ligature, and tying the knot, his efforts were fruitless, as on removing the pressure the hæmorrhage recurred with undiminished violence, and the patient's existence was soon terminated.

"*Dissection.* After the integuments were removed from the course of the right carotid, the sac of a small abscess was exposed, occupying the situation of the first ligature. Its lateral diameter did not exceed one inch, extending from the opening into the larynx to the right side of the sheath of the vessels. Its extent from above downwards was less. The lower extremity of the carotid was visible, it was distant from the upper about half an inch, both were pervious, and the edges of their orifices were ulcerated and irregular. In prosecuting the dissection, the parts were found closely consolidated. The sheath adhered so closely to the vessels and the cellular texture surrounding it, that no infiltration of blood could have taken place. Having removed the larynx and trachea, with the vessels on each side, the injured carotid was slit open; its coats were found considerably to exceed in thickness those of the artery on the left side." P. 342.

9.—*A Case of Traumatic Tetanus, successfully treated, by Tobacco; with Observations.* By James O'Beirne, M.D. Surgeon Extraordinary to the King, &c.

Dr. O'Beirne observes that "much of the capricious and *unmanageable* character of tetanus may, with strict justice, be imputed to the want of any philosophical views of either its seat or its causes." As tetanus has been treated upon every possible hypothesis as to its etiology and pathology with nearly the same success—or rather want of success, so, we fear, that it would still maintain its *unmanageable* character, were its seat and causes ever so well known. By this observation we do not wish to check inquiry, but to mo-

derate anticipations in respect to therapeutics. We are convinced that, in many diseases, the extension of our investigations will be the abridgment of our hopes of cure. Knowledge will show us good and evil. It will show us what we *can* do —and, alas! what we *cannot* do, which will be a great advantage after all, though sufficiently mortifying to human pride. It is highly probable that there is, even now, as much mischief done by ignorance, as benefit conferred by skill, in the unlimited field of medicine! The progress of science will have a constant tendency to check this evil, alike distressing to humanity and degrading to the profession.

To return to tetanus. Dr. O'Beirne enters pretty fully into the various hypotheses and conjectures which have been entertained in ancient and modern times respecting tetanus. It was natural enough, on seeing the voluntary muscles so much affected, and the sensorial functions so unimpaired, to place the seat of the disease in the medulla spinalis, the source of the nerves supplying the said muscles. Galen, therefore, gave this opinion, and has been followed by Fernelius, Willis, Hoffman, Burserius, and several others, whose examinations of the spinal brain gave an importance to the theory which a mere hypothesis could never have attained. This theory, however, like many others, sank into neglect or was totally forgotten till within these few years, when anatomical examinations of the spine have again attracted the notice of the profession. Some physiological facts were calculated to awaken our attention to this subject:—Thus Walther produced artificial tetanus by plunging a very slender stiletto into the spinal marrow of a frog, after the head had been severed from the trunk. The same phenomenon was observed to ensue on pressure being made upon the cerebral extremity of the medulla spinalis of such acephalous fœtuses, as, for a short time, survived birth. It was reserved, however, for Le Gallois, Philip, Brodie, and some others, to produce, by direct experiments on the nervous system, results both surprising and unexpected, confirming the experiment of Walther, and exhibiting numerous other curious and important phenomena. Dr. Sanders, of Edinburgh, has long been investigating this subject, and has already laid many important facts before the public. It is well known that this gentleman states his having almost invariably found appearances of inflammation or vascular turgescence in either the tuber annulare, medulla oblongata, or medulla spinalis, of tetanic subjects. In trismus these appearances were confined, in many instances, to the tuber annulare and medulla oblongata, while the spinal marrow remained healthy. Dr. Reid, of Dublin, has published some curious circumstances tending to

elucidate the same subject. Although other investigators have not been able entirely to confirm these views by anatomical proofs, yet there can be no rational doubt that the spine is the fons et origo of the formidable disease under consideration, and that we are in the right path of investigation, though, probably, a long way from the end of our journey.

In what way the reputed causes of tetanus produce the morbid condition of the spine and irregular function of the nerves arising from it, is no very easy matter to explain. Our author thinks it incumbent on him to attempt something like a ratio symptomatum in this case, though with much modesty. As tetanus follows so small a number of wounds, comparatively, Dr. O'Beirne thinks it reasonable to conclude that some predisposition or peculiarity must exist in the constitution of the individual attacked, and if this could be ascertained it would be a great object to remove it. He divides the causes then into exciting and predisposing. Under the first class must be reckoned wounds, the action of cold, atmospheric influence, passions of the mind. The class of predisposing causes is large, and many of its items have been glanced at by our author.

Heurteloup mentions a case where the intestines were blocked up with cherry-stones—and many cases of cholera end in tetanus. Mr. Abernethy found the chylopoietic functions out of order, and Dr. M'Arthur has described a "peculiarly offensive smelling yellow matter" pervading the intestines of tetanic patients. Constipation has been often observed to precede this disease. Worms have been very often found in the intestines of those who died of tetanus, and Dr. O'Beirne thinks they are more frequently the cause of this disease than is generally supposed. During life the constipation prevents their discharge, and after death it is but too usual to neglect laying open the whole length of the intestinal canal. To this it may be added that, when worms do exist, they are generally crowded into one spot, and thus may easily elude detection, unless a careful examination be made. As the predisposing causes have been almost exclusively traced to the organs subservient to digestion, our author is led to look upon the splanchnic system as the medium of communication between these organs and the spine, "from which, by a reflected operation, the original sources become themselves excited in their turn." The comparative success which has, of late years, attended the purgative plan of treatment, affords, our author thinks, strong confirmation of the doctrine in question. He gives us the melancholy information, that out of about 200 cases of traumatic tetanus which he witnessed in the Peninsular army, not one recovered. The an-

tispasmodic plan was more employed than the purgative, and he cannot recollect that the spine was ever examined. If our author's views of the etiology of tetanus then are admitted, they necessarily lead, he thinks, to the following indications of cure, viz. 1st. To have recourse to the most powerful remedies for overcoming constipation and destroying worms. 2dly. To employ those which show the most decided empire over the nervous system. Of all modes of treatment, observes Dr. O'B. "the combination of the purgative and antispasmodic plans has been the most generally successful." Under such circumstances our author thinks it strange that tobacco, which concentrates within itself such various properties, and has shown such marked influence over diseases of the same class, should not have been frequently and fairly tried. The earliest instance of its mention or employment in tetanus, was by the late Mr. Royston, in his Medical History of Tobacco, in which he states that Dr. Edmund Gardiner published a little work in the beginning of the 17th century, entitled the "Triall of Tobacco," asserting that "the suffumigation of tobacco being taken is a good remedy for the starkeness or stiffness of the neck called tetanus," &c. Baron Larrey applied poultices of tobacco leaves to the wounds of many of the soldiers who were affected in Egypt with this disease, but without any alleviation of the symptoms. Mr. Thomas Duncan, of Grenada, relates a case cured by tobacco-smoke; and on the authority of the same gentleman it appears that Mr. Harris, Surgeon of His Majesty's ship Magnificent, after Rodney's victory in the West Indies, recovered a case of traumatic tetanus by the fumes of tobacco blown up the nostrils. But it is time to give an account of the case which led to these observations and researches.

Case. J. Flood, aged 13, a healthy strong boy, had his feet miserably torn by approaching too near some machinery, on the 16th of August. He was immediately conveyed to the Charitable Infirmary, and had not been exposed to cold or wet. Emollient poultices were applied, and the bowels opened by sulphate of soda. In a week the wound exhibited a sloughy appearance, and the boy was slightly delirious. On the 25th of August, he complained of stiffness of the neck, and pain in turning the head—bowels constipated. Next day the rigidity of the neck was quite perceptible. 27th. Complete trismus—slight opisthotonos—bowels obstinately confined. On the 30th, all the symptons being aggravated, it was determined to use the tobacco-glyster, (a scruple to the half pint,) and to repeat it the same night. The injections could not be forced up during the tetanic paroxysms,

so powerful was the constriction of the rectum. In the intervals, however, they were passed up with ease. Each enema was retained about two minutes, and caused nausea, vomiting, copious perspiration about the head and chest, tendency to deliquium, and sense of great heat through the intestinal canal. The general symptoms were rather worse on the 31st. The injections to be twice repeated this day again. Sept. 1st. One of the injections yesterday brought down some black indurated fæces, and a dead lumbricus about one foot in length. Spasms less frequent to-day—neck less rigid. 2d. Had two injections yesterday. Continues better—deglutition more easy. These enemas were continued with more or less frequency till the 17th of September. They generally opened the bowels copiously, and relieved the tetanic spasms. By the 8th of October the spasms had disappeared, and he completely recovered.

Dr. O'Beirne has filled many pages with reflections on this case—indeed he is rather too prolix; for a single case can do no more than authorize further trials, without exciting any thing like sanguine hopes, or forming any basis for general conclusions. It appears to us that the principal indications of a useful kind, which the tobacco enema is calculated to fulfil, is the evacuation of the bowels. From the state of the sphincter and of the rectum, we may fairly conclude, that the whole line of the intestinal canal participates in the tetanic spasms, and therefore the tobacco, cautiously administered, and properly proportioned, may be a very useful mean of overcoming this rigidity, and keeping up a soluble state of the bowels, so highly desirable in this formidable disease. It is always to be borne in mind, however, that tobacco is very uncertain in its effects on different individuals, and even on the same individual, in different circumstances. The dose should, therefore, be small at first, and the effects carefully watched.

10.—*An Account of two Cases in which Bronchotomy was performed.* By Richard Burgess, M.D.

Our readers will remember some cases of violent inflammation about the larynx produced by children swallowing hot water out of the spouts of tea-kettles, as described in the Medico-Chirurgical Transactions, and analyzed in this Journal. The cases in the work before us are of a similar nature. In the first case the mouth, tongue, and fauces were severely scalded, so as to prevent deglutition, and considerably impede respiration. On looking into the mouth two hours after the accident happened, "it appeared as if a large piece of

raw flesh had been forced into the fauces, and had completely filled up the passage." Respiration was very difficult, and becoming more and more laborious—in fact, the child appeared to him to have but a short time to live. Bronchotomy was therefore performed with some difficulty, and relief was instantaneously obtained. The usual treatment for inflammation was pursued. About the 8th day deglutition was practicable, and on the 10th, air could be breathed by the natural passage.

The second case was similar; but our author did not see the child till eight hours after the accident. "She appeared lifeless;" Mr. Burgess opened the wind-pipe, and the child instantly revived. She died, however, in about twelve hours after the operation, in consequence of the attendants neglecting to keep the wound free from the mucus which collected within it.

11.—*Case of Strangulated Hernia, occasioned by a double Stricture in the Sac, of an Hour-glass Shape.* By Richard Carmichael, M.R.I.A. Surgeon of the Richmond Hospital, &c.

It does not follow that a case is extremely rare because it has never been described. Many things happen, and are known to individuals, but never recorded. Very many things daily happen, of an extraordinary nature, which are neither observed nor recorded. What has happened once, therefore, we may reasonably calculate upon happening again, where observation is directed to the point. We are inclined to think that the case recorded by Mr. Carmichael has not unfrequently been the unsuspected cause of failure in operations for hernia:—and if this be the fact, the circumstance about to be stated deserves to be treasured in the memory of the surgeon.

On the 6th of December, 1821, a middle aged man was brought into the Richmond Hospital with strangulated hernia, stating that the symptoms had come on the preceding evening. Every attempt to reduce the protruded parts by the taxis proved unavailing; but the symptoms not being urgent, the operation was deferred till next morning, and a further trial given to blood-letting, purgative pills, warm bath, and tobacco injection. These also failing, Mr. C. in consultation with Mr. Todd, proceeded to the operation. He first endeavoured to return the protruded parts (a scrotal hernia of the left side) without exposing them, but could not succeed this way in returning the hernia. The sac was therefore opened, and a knuckle of intestine disclosed of a livid

colour, but not mortified, and a large volume of omentum, some of which firmly adhered to the lower part of the sac. The stricture which was formed by the neck of the sac gave way to the pressure of the finger, or was rather torn through by the nail, and the intestine was, in consequence, reduced with much ease. But greater difficulty was experienced in returning the omentum, the major part of which was, however, reduced.

The patient being put to bed, and an enema exhibited, no motion followed. In the evening he was much worse. Numerous leeches were applied to the abdomen, and a large bleeding taken from the arm. Great gastric irritability. On the morning of the 8th he died.

"On examination—The contents of the abdomen were found free from inflammation; but neither the strangulated intestine nor omentum could be discovered. It was evident that they had not been returned into the cavity, although when operating I had pushed them as far upwards as my finger could reach into what I conceived was the cavity of the abdomen. Further dissection explained these perplexing and extraordinary circumstances. It was found that between the internal and external rings, the sac had expanded itself into a large cyst, which extended into the basin of the pelvis on the one side, and into the hollow of the ilium on the other, lying between the muscles, being covered anteriorly by the external oblique, and separated from the cavity of the abdomen, by the peritoneum, the fascia transversalis, the transverse, and internal oblique muscles. In this cyst the inflamed intestines and the omentum were discovered, and found to be completely strangulated by the internal ring. I do not recollect any systematic writer on hernia who has noticed this hour-glass sac and double stricture; but having been ascertained in one instance, no doubt it has often occurred, and occasioned the failure of the operation, and as a fact of some practical importance deserves to be made generally known.

"Even had I been aware of this unlooked-for formation of the sac, I could not have removed the stricture of the internal ring in the usual way, as it lay far beyond the reach of the finger from the external ring; I should therefore, have been obliged either to cut down directly upon the former, or else have continued the incision from the one to the other. The protruded parts thus being in this case subjected to two strictures, there can be little doubt but that of the internal ring was the primary one, and the greater of the two, and that the strangulation was probably caused by the descent of an additional portion of intestine or omentum; while that caused by the external ring was probably but secondary, and produced by the swollen state of the intestine from the stricture above." 386.

The peculiar formation above described, Mr. Carmichael thinks, arose from a careless or injudicious use of the truss, which is generally applied by the patient so near to the os

pubis, as to be only capable of closing the external ring, while the herniary tumour is allowed to remain between the two rings—a space which, as is seen in the case related, may be gradually extended from the increasing size of the herniary mass, while it is prevented from passing downwards by the application of the truss at the external ring. This case, therefore, should afford a warning both to surgeon and patient, respecting the application of the truss; and shows the necessity of placing the pad exactly over the site of the internal ring. From the experience of this case, our author would be extremely unwilling, on future occasions, to leave any portion of omentum unreduced, as its presence at the ring must prevent, in a great degree, the surgeon from ascertaining with proper accuracy whether any farther stricture remains undivided.

12.—*A Case of Dislocation of the Hip-Joint, with the Manner of its Reduction, and the Appearances on Dissection.* By JAMES SCOTT, M.D. Surgeon to the County Infirmary of Armagh.

THE recent morbid anatomy of dislocations must be rather defective, from the rarity of these accidents proving fatal, and consequently the rarity of anatomical investigations. There are not many cases on record of the post-mortem appearances in luxation of the hip-joint, and therefore the following particulars are deserving of universal diffusion. The patient was working in a gravel-pit when a bank fell in upon him. In six hours after this accident he was seen by Mr. Scott. The thigh was shortened and deformed, the muscles flaccid, the knee and toes turned inwards. Every attempt at rotation outwards caused extreme pain in the groin, at the hip, and in the course of the sciatic nerve. The description of the reduction we need not notice, as our late numbers have contained enough on that subject. Shortly after the poor man was put to bed, it was discovered that a serious injury had been received in the abdomen, which caused his death in 36 hours after the accident.

"On dissecting down to the hip-joint, an extensive extravasation of blood presented itself in the cutaneous cellular substance, covering the trochanter major, and also beneath the fascia lata of the thigh, extending several inches above and below the trochanter. The gluteus magnus being raised from its origin, a considerable extravasation was found in the loose cellular tissue under the gluteus medius: a cavity capable of containing a pullet's egg was also brought into view. This cavity was situated directly where the great ischiatic nerve passes under the pyriform muscle; it contained fluid blood; its boundaries were the pyriformis above, the sciatic nerve

before, (supposing the body upright,) the trochanter major, and insertion of the gluteus medius external and posterior, the gluteus maximus posterior. Here the displaced head of the femur had been lodged. The fleshy substance of the gemini and quadratus muscles was found torn across. The pyriformis and obturator internus were perfect. The extravasated blood followed the course of the sciatic nerve deep into the thigh. There was also extravasation between the gluteus medius and minimus muscles.

"The internal and upper part of the capsular ligament of the joint was ruptured; the external portion remained unbroken. On turning the head of the bone out of its socket, the ligamentum teres was found to have been torn from its insertion into the dimple of the head of the thigh-bone. The brim of the acetabulum at its upper part was fractured to the extent of about an inch; the fractured portion lay loose and nearly unconnected. A fracture traversed the acetabulum in the direction of the junction of the ileum (ilium) and ischium." 393.

13.—*An Account of a Dissection of the Hip-Joint after recent Luxation. With Observations on the Dislocation of the Femur upwards and backwards.* By CHARLES H. TODD, one of the Senior Surgeons to the Richmond Surgical Hospital, &c.

In the summer of 1818 a robust young man fell from the window of a second floor into a flagged area, by which he fractured the cranium, and dislocated his left thigh upwards and backwards. The dislocation was reduced without difficulty, but an extensive extravasation of blood in the brain put a period to the patient's life in 24 hours. On the following day the examination was made of the injured joint and parts contiguous.

"On raising the gluteus maximus, a large cavity filled with coagulated blood was found between that muscle and the posterior part of the gluteus medius. This was the situation which had been occupied by the dislocated extremity of the femur. The gluteus medius and minimus were uninjured. The pyriformis, gemini, obturatores, and quadratus, were completely torn across. Some fibres of the pectinalis were also torn. The iliacus, psoas, and adductors were uninjured. The orbicular ligament was entire at the superior and anterior part only, and it was irregularly lacerated throughout the remainder of its extent. The interarticular ligament was torn out of the depression on the head of the femur, as in Dr. Scott's case, its attachment to the acetabulum remaining perfect. The bones had not sustained any injury." 396.

We are unable to give Mr. Todd's reflections and criticisms on Boyer, Richerand, Sir A. Cooper, &c. and therefore having stated the fact, we refer to the work itself for the comments.

14.—*On Diseases of the Lachrymal Gland.* By CHARLES H. TODD, &c.

OUR author observes, that although this gland is not so frequently affected as its situation, connexions, and sensibility would lead us to expect, yet it is more often drawn into disease than most writers allow.

The lachrymal gland is subject to acute inflammation, sometimes idiopathic, but in the greater number of cases, succeeding to conjunctival inflammation or some other form of ophthalmia.

"The symptoms of acute inflammation of the lachrymal gland, are, intense pain in the orbit, but particularly under the temporal extremity of the eyebrow, extending to the temple and cheek, backwards into the orbit, and even into the cranium; defective or profuse lachrymation; when the latter, which is most generally the case, the patient complains of the tears being hot and acrid, and in a few days the edges of the eyelids and the cheeks become excoriated to some extent; both palpebræ, but particularly the superior, are swollen, red, and tense; inflammation extends to the conjunctiva and other membranes of the eye, and thus a severe and obstinate form of ophthalmia is produced. More commonly, however, inflammation originates in the conjunctiva, and is thence propagated to the gland.

"When the inflammation of this gland is at its height, there are much symptomatic fever and restlessness; flushing of the face, particularly at the affected side; acute pains darting through the orbit and head; and, as it is stated, more or less delirium, with strabismus, impaired vision, and protrusion of the globe proportionate to the size of the swelling." 410.

The remedies are, of course, general and local blood-letting, warm fomentations, mercurial and saline purgatives, antimonials.

Chronic Inflammation of this gland is a disease, Mr. Todd observes, almost entirely confined to the early periods of life, and probably dependent on a scrofulous disposition. In this affection there is an obvious enlargement of the gland, with an occasional œdematous tumefaction of the upper eye-lid, the patient complaining of an inconvenient sensation of fullness, rather than pain, above the globe, and an inability to move that side as freely as the other. This produces strabismus, and double or indistinct vision.

"In this disease the best effects are obtained from the application of a few leeches to the neighbourhood of the gland, at as early a period as possible; from a succession of small blisters to the forehead, temple, and behind the ear; from small doses of calomel, blue

pill, or some other mild preparation of mercury, with the occasional use of saline laxatives; and from such medicines as an imperfect performance of the digestive functions may indicate. Local applications, except where the conjunctiva or eyelids are inflamed, or the cornea ulcerated, are unnecessary; and even in such cases the benefit derived from them will be small and of short duration, unless our exertions to restore the gland to a healthy state be effectual." 412.

Besides acute and chronic inflammation, the lachrymal gland is subject to enlargements, (scrofulous) abscesses, and scirrhus; for cases of which we refer to the present paper.

15.—*Observations on the Treatment of Diabetes Mellitus.* By Henry Marsh, A.B. M.D. &c.

Dr. Marsh thinks that, since the publication of Dr. Rollo, and the investigations that followed, diabetes mellitus has lost somewhat of its hopeless and intractable character. Very small, we think, has been the loss; and as to the animal food treatment, the efficacy of which was, at first, scarcely doubted, it will be found, as Dr. Marsh observes, "greatly to disappoint the expectations of those who are disposed to place much reliance upon its virtues." There can be no doubt, indeed, that an exclusively animal diet may alter considerably the sensible properties of the urine, and materially diminish its quantity, but even with the few who can endure such restriction, little will be done towards the removal of the disease. A partial adoption of this regimen will, however, be useful, and merit is undoubtedly due to Dr. Rollo for his discovery respecting the change produced in the saccharine urine by a total abstinence from vegetable matter.

Among the remedies which have been employed, opium in large doses has ranked high. It checks the flow of urine, and deprives it of many of its morbid qualities. Its effects, however, are of a transient nature, and when the medicine is withdrawn the complaint recurs. A permanent cure of the diabetes mellitus has rarely been accomplished, and a perfectly successful mode of treatment yet remains to be discovered.

A well-marked case of this disease was lately presented to our author's notice, and he naturally searched for all the information he could collect from books. While employed in these researches, his attention was particularly arrested by the following important considerations.

"First, in many of the cases whose histories are recorded, the earliest disturbance in the general health could distinctly be traced to some cause acting upon the skin, and producing derangement of its functions. Secondly, *every* case of the Diabetes Mellitus is ac-

companied with a peculiarly morbid condition of the skin. In truth, I know not any disease, in which this symptom is so uniform, and so remarkable. Thirdly, none of the remedies employed, produced the slightest beneficial effect, until the skin began to relax, and a sweat to appear on the surface.*

"These considerations led me to turn my attention more particularly to the state of the skin, and suggested the probability of advantage arising from the application of *vapour* to the whole surface of the body. The vapour bath was employed. The impression made upon the disease by the frequent use of this remedy, surpassed my expectations. Its salutary effects, in giving a new action to the skin, were immediately perceptible. The perspiration having been afterward maintained by warm clothing, and continued bodily exercise, the patient daily improved in health; and at length quitted the hospital, under the conviction of his disease being wholly removed." 434.

Our author, after making several useful remarks on certain cases in Dr. Rollo's and Dr. Latham's publications, proceeds to a detail of the principal facts connected with his own case.

The patient was a shoemaker, 20 years of age, sallow complexion, great emaciation, full and prominent veins, skin a dingy yellow, permanently acrid, and glued apparently to the subjacent muscles; gums ulcerated; a small unhealthy ulcer on the right cheek; epigastrium tumid; tongue flozid at margin and point, and covered in other parts with a thin whitish secretion; extreme listlessness, languor, debility; a sensation of weakness referred to the knees; dimness of vision;

"* See two cases of Diabetes treated by opium. *Transactions of the London College of Physicians*, vol. iv. In Case I, it is stated, p. 198, that 'the opium produced considerable perspiration, and on the following morning the urine was no longer sweet. The patient had felt great relief from languor since the opium had been resumed.' In Case II. p. 208, it is observed that, 'during the period in which the dose of opium had amounted to ten grains (taken four times in the day) the patient had perspired profusely, had been sleepy and giddy, but had suffered no other inconvenience: the urine had a natural appearance and odour, and yielded a very inconsiderable extract.' A case is recorded by Dr. Darwin, in which opium produced salutary effects, at a time when it caused the patient so to sweat, 'that large drops stood on his face, and all over him.' Another case is mentioned by the same author, in which a course of astringent and tonic medicines did not in the least benefit the patient. Opium was at length given; it excited profuse perspiration, and great relief ensued. Emetics have been useful, so far as they have been effectual in determining to the surface. The Hepatized Ammonia has also had the effect of promoting perspiration. Antimonials, when effectual in exciting diaphoresis, have likewise been found useful. Blood-letting and the warm bath are valuable remedies, and their utility will be found proportionate to the power they possess of re-establishing the functions of the skin." See Watt on Diabetes, pages 27, 28, 29, 36, 38, 151, 152, 155.

disturbed sleep; sensation of creeping coldness over the surface; appetite inordinate; thirst unquenchable; mouth clammy; digestion rapidly performed, with a craving sensation recurring soon after food is taken; costiveness; constant desire to make water, which is increased during the night. From 20 to 22 pints of urine are passed ordinarily in the 24 hours—the bubbles remaining on its surface, but limpid and almost colourless, its smell peculiar, and not easily to be described; taste very sweet. When evaporated, an abundant extract resembling coarse brown sugar remained—pulse 86, and throbbing—neither cough nor dyspnœa. Such were the symptoms on the patient's admission into hospital towards the end of December. He stated that in the beginning of the preceding November, while crossing from Liverpool to Dublin, then in perfect health, he encountered a violent storm, and was exposed to much wet, cold, and hunger, during four days. After quitting the vessel he felt himself constantly chilly, to which intense thirst succeeded, and he was perpetually swallowing large draughts of cold water. His skin he described as very dry, with a total want of perspiration, dimness of vision, and costive bowels. Languor and debility increased, notwithstanding the large supplies of food; and at length he was obliged to abandon his ordinary occupation, and seek relief in a hospital.

On the 1st of February, venesection to 10 ounces, the serum being milky, the crassamentum firm. The symptoms were unaffected by the bleeding. From this time, on to the second of March, mercury was used externally and internally, in large quantities, without fetor of the breath, or increase of saliva indicating mercurial influence. He lost ground during the use of this medicine, and at length was unable to leave his bed through weakness. On the 2d March, the vapour bath was tried, and repeated on the 9th, 12th, and 26th, the symptoms still continuing unabated, but with perhaps some slight accession of strength. From the 2d to the 27th April, all treatment, except daily purgation, was laid aside. The sweet urine often exceeded 24 pounds in the 24 hours. On the last-mentioned date he was again placed in the vapour bath, half an ounce of the tincture of opium being mixed with the water. After remaining twenty minutes in the bath, syncope supervened, after which he became feverish and hot. At length the skin opened, and the whole surface of the body became covered with sweat. He felt immediately relieved, and on the following day was much better. On the 4th May he was again put into the vapour bath with the tincture of opium as before. There was no tendency to faintness; but a copious perspiration followed, and was succeeded by a sound

and refreshing sleep. On the 10th May, a note was made that his strength was improving daily—that he felt much less languid—skin soft and perspiring—pulse 88—appetite less craving—improved sleep—increase of flesh—gums still ulcerated. 18th May, urine almost colourless and very sweet, amounting during the preceding 24 hours to 24 pints—thirst urgent. May 22d, a temporary diarrhœa; during the increased action of the bowels, the urine assumed an amber colour, and acquired a urinous odour, being much diminished in quantity and saccharine quality—tongue cleaner—fæces yeasty—no perspiration—skin itchy. May 30th, urine still amounts to 21 pounds—pulse 100—no perspiration. Had been ordered for some time past an exclusively animal food diet, with lime water and milk for drink; but he secretly devoured whatever vegetable food he could procure. June 3d, a remarkable change in the symptoms—only 8 pints of urine during the last 24 hours, the perspiration being copious—great accession of strength, and diminution of thirst and appetite. The perspiration was produced by laborious exercise, the body being enveloped in flannel, and the weather being warm. From this period till the beginning of July, medicines of every kind were left off—he worked hard every day—was warmly clad, and sweated much. His food was principally vegetable—he daily gathered strength and weight—enjoyed sound undisturbed sleep, and felt himself so far relieved that he was resolved to return home and resume his original avocations. A little persuasion induced him to wait some time longer under medical superintendence. But we cannot pursue the daily routine of treatment, which varied according to circumstances. In the month of September he quitted the hospital.

"I saw him on the first of January, 1822. There was not any return of the symptoms; the skin retained its natural softened feel; he weighed eight stone five pounds; his pulse was moderate: the expression of his countenance very much improved: though not exempt from thirst, it gave him no annoyance: his tongue was whitish; he felt strong, and alive to every enjoyment; he worked at his trade as a shoemaker, from an early hour in the morning, with little intermission, until late at night; his diet consisted of bread, butter, occasionally meat, fish, potatoes, and gruel: the gums were very slightly ulcerated; the bowels, without medicine, were daily evacuated; the general quantity of urine, in the course of a day and night, varied from six to seven pounds; taste salt, slightly saccharine; colour still paler than natural." 449.

Such are the leading facts belonging to this case. Although we are far from thinking the patient perfectly cured, we grant that the case exhibits, in a striking point of view, the power-

ful effects of copious perspiration, whether produced by the vapour bath or muscular action, in controlling the symptoms of diabetes. Diaphoretics are, of course, no new remedy in this disease; but they have generally been exhibited internally, and have been ineffectual in rousing the action of the skin. The etiology of the disease in this case, seemed to point to the vapour bath as a powerful counteractor of the impression made by wet and cold on board the vessel. But having once relaxed the skin, and brought it into a perspirable state, it is of the greatest importance to keep up the said condition of surface, and this seems best done by exercise and clothing. It would appear necessary that the diabetic patient should never allow a day to pass without a certain quantum of exercise, if the strength will at all permit. In the upper classes of society, horse exercise is a valuable remedy, as it excites perspiration without inducing fatigue. To exercise the patient will generally be very averse at first; but experience of its good effects will soon render it agreeable. The same cannot be said of the other remedies, as opium, animal diet, &c. In the case above sketched out, we omitted to state that a very considerable disgust was raised by the animal food—an event not very rare where such diet is exclusively used. We agree, therefore, with Dr. Marsh, that the cure of a disease so generally fatal as diabetes, should never be trusted to a single remedy. A regular and systematic plan of treatment should be entered on, while the exciting and maintaining a general diaphoresis should be considered an indispensable part thereof. For many suggestions and judicious observations on diabetes we must refer to Dr. Marsh's paper, which is creditable to his judgment and research.

The remaining article in this volume, is an operation for axillary aneurism, by Mr. Todd, which we have fully detailed in a former number of this series.

We hope and trust that every year will present us with a new volume of these Hospital Reports, so honourable to the professional character of the sister island.

VI.

An Essay on the Medicinal Efficacy and Employment of the Bath Waters; illustrated by Remarks on the Physiology and Pathology of the Animal Frame, with reference to the Treatment of Gout, Rheumatism, Palsy, and Eruptive Diseases. By Edward Barlow, M.D. Graduate of the University of Edinburgh; Member of the Royal College of Surgeons of Ireland; one of the Physicians of the Bath Hospital, and of the Bath City Infirmary and Dispensary; and Physician of the Charitable Society for the Relief of Lying-in Women. Octavo, pp. 200, Bath, 1822.

Dr. Barlow justly remarks that a Treatise on Mineral Waters, by a Physician residing at their source, is too apt to be regarded either as an attempt to bring the author into notice, or so to exaggerate the medicinal virtues of the springs as to entice visiters to the spot. At the same time it is highly probable, that the fear of this imputation has prevented many able but modest physicians giving publicity to valuable information acquired by local experience. To omissions of this kind, our author thinks, may be attributed much of that decline, in public and professional estimation, which the Bath Waters have experienced of late years—a decline, we imagine, not a little accelerated by the undissembled skepticism of some eminent physicians on the spot, especially the late Dr. Parry. The object of Dr. Barlow's present work is not to go over the long beaten track of chymical analysis, and dissertations on the well-known general properties of the Bath Waters; but rather to show that their administration in several diseases is consistent with the best established principles of pathology, and not incompatible, even with those peculiar doctrines which have been considered as chiefly influential in bringing them into disuse. He hopes, also, by appeals to actual experience, to prove the advantage of these waters in cases where the presence of inflammatory symptoms would appear to contra-indicate their use.

But, as mineral waters, like all other medicinal substances, derive their efficacy from the powers which they possess of calling into action the inherent energies of the living system, so it is necessary to study the physiology and pathology of the animal frame in connexion with any investigation of the said waters, and this is what Dr. Barlow has done. In fact, if all that is directly applicable to the mineral springs of Bath was expunged from the volume before us, there would

be no great deficit in its size, or perhaps in its real value. We may, indeed, observe here that a more extended view of our author's physiological and pathological principles was published several years ago in the 9th and 10th volumes of the Edinburgh Medical and Surgical Journal. His subsequent experience, he observes, founded on a tolerably extensive public and private practice, has confirmed his convictions of the soundness of his published principles, pathological and practical.

As these principles appear to us to contain much that is valuable, though perhaps not much that is entirely new, we shall not deem it inexpedient to give a rapid coup d'œil of them in this place.

1. *General Pathology.* The most prominent, and not the least surprising feature in the animal frame, is the constant and simultaneous processes of renovation and decay which go on from birth till death. The states of assimilation and secretion vary very much, however, and are, in civilized life at least, very seldom in the just and salutary equilibrium necessary for the support of health. If the balance is in favour of assimilation, repletion must necessarily succeed; but this last may, and often does take place under a moderate and even abstemious supply of food, when, from a sedentary life, inactive habits, or defect in some of the emunctories, the necessary quantum of excretion or secretion does not obtain.

"As repletion, then, may take place under very different circumstances, so is its presence marked by very different phenomena. Whenever it arises one of two consequences is sure to result: either it excites the several functions, if sufficiently healthy and vigorous, to increased actions tending to its speedy appropriation and removal, or if these functions be weakly and unable at the moment to institute and support those depuratory processes by which the animal frame is enabled to throw off noxious or redundant matter, then the functions of life, oppressed by a task to which they are unequal, manifest a decline of ordinary power, and all the outward phenomena of debility are displayed. To discriminate this state from one of real debility, as arising from exhaustion of animal power, or defect of nutriment, is a matter of practical importance, not inferior to any which medical science may be engaged in illustrating." 13.

This is an extremely important subject, and our time will not be uselessly employed in taking a somewhat nearer view of it in this place.

When redundancy of nutrition obtains in a healthy constitution, its primary effects are manifested in what may be termed an exuberance of health, rather than a state of disease. The functions are vigorously performed—the nutrition of the

several structures is above par—and an increase of bulk is the result, especially if the habits of the individual are not unusually active. If the excess be casual, or inconsiderable in extent, the self-adjusting powers of the constitution may dispose of it so as not to end in actual disease. But if the extent or continuance of this excess urge the powers beyond a certain point, the sanative efforts of the constitution fail, and irregular actions of various kinds obtain, laying the foundation of a large proportion of the specific diseases to which human nature is liable. The general character of diseases so occurring is inflammatory, and the specific form and seat will depend on the predisposition of the system, the accidental debility of particular organs, and the casual excitement to which the body may be subjected. It is needless to remark that depletion, positive and negative, is the remedy for this state of things.

The interval which precedes the occurrence of these increased actions in weakly habits, where the self-adjusting powers are unequal to early restoration, is one of peculiar interest, because its phenomena are of equivocal character, resembling in many respects those which belong to a very different state of the system, and, hence, liable to be misunderstood. They have hitherto been very imperfectly investigated or described. In fact, the attendance of the physician is seldom required until this incipient derangement has passed into some more distinct form of disease. On this account our author has entered more fully into its consideration, pathological and therapeutical, than would be necessary in discussing other and more familiar forms of disease. It is scarcely less important to study with care also that state of the system in which repletion takes place under moderate nutrition with defective secretion, and in which the system is oppressed, not by the quantity of nutriment or the labour of disposing of it, but by the load of excrementitious matter undischarged. Our author now proceeds to consider the three several conditions of plethora which have just been noticed.

To the first condition, or that arising from excess of nutrition in a healthy subject belong all the cases of pure inflammation which we daily witness—the specific form of the disease arising partly from the operation of the exciting cause, but chiefly from the predisposition of the parts affected.

"When, from the increase or continuance of a state of plethora, the powers of the constitution fail to dispose of the excessive nutriment by applying it to a more abundant nutrition of the several structures of the body, the increased efforts subside for a time, and a state of incipient debility ensues: the pulse becomes low, oppressed, irregular. If this state be relieved by adequate evacuations and a re-

duced diet, the plethora is removed, and health is restored; no specific disease ensuing. But, if neglected, it either passes, sooner or later, into a state of permanently increased action, amounting to fever or inflammation, and some specific disease is induced, according as the constitution is predisposed to any particular malady; or else, if the constitution be, from a natural delicacy, or the extent of labour to be performed, unequal to the effort necessary to generate a state of fever or inflammation, the general health progressively declines, the powers of life become enfeebled, and the constitution sinks under some of the complicated forms of chronic disease." 23.

The acute attack itself is easily recognised and soon subjected to proper medical treatment; yet, previously to this, a deviation from a state of health may generally be detected, which as clearly indicates the propriety of some depletion, though perhaps to a moderate extent, as when the acute attack has actually supervened. If this state were relieved by adequate depletion and other suitable means, the said acute attack would be always prevented, or so mitigated as to be free from danger. We need hardly observe that as these states quickly terminate in death or recovery, they rarely admit of the use of the Bath-waters. We therefore proceed to consider the second state of plethora, or that in which repletion takes place in a constitution deficient in natural vigour, or impaired by predisposition to disease.

"In this state, the earlier deviations from a healthy condition take place so gradually, that they are for a long time nearly unnoticed: there is occasional languor and disinclination to the customary exertions; irregular distribution of blood as marked by coldness of feet and variable countenance, the bowels are irregular, the appetite is capricious, or fails; and both flesh and strength decline. At the earlier periods of this state, the pulse will be found weak, often irregular. Sooner or later a febrile or inflammatory state ensues, marked by a quickened circulation, some increase of temperature, and a white or furred tongue. This state may continue for an indefinite period, and be subject to frequent variations. Most frequently in course of time some local ailment supervenes, which engrosses the attention, and to which, when discovered, the constitutional indisposition is not unfrequently ascribed." 25.

In order to form a clear conception of the phenomena characterizing this state of plethora, great attention must be paid to the pulse. Its incipient lowness is that symptom which so generally misleads, as it suggests the employment of tonic and stimulant medicines. It is highly necessary, therefore, to distinguish it from a pulse of pure debility; and this, our author thinks, may be done by conducting the examination with suitable accuracy.

"'If firm pressure be made on the artery, it will be found to resist this, and, on gradually withdrawing the pressure, to rebound against the finger with a force much more considerable than a casual examination would lead one to expect.' With respect to the irregularity of the pulse, I also noticed that this could be observed as occurring both in its force and frequency, and that the irregularity of force, or that in which the artery makes a few strong pulsations, as if by a sudden effort, and again relapses into a state of diminished and oppressed action, indicates a nearer approach to the period of actual fever or inflammation than the regularity of frequency only. Indeed it seems to be the connecting link between the stages of feebleness and of permanently increased action, and to consist essentially in the desultory and imperfect efforts of the vascular system to form this latter stage; for when the febrile or inflammatory stage is fully formed, the irregularity, for the most part, disappears." 27.

Therapeutical observations will be made farther on. We must therefore pass to the consideration of the third or last stage of plethora, in which the repletion arises, not from excessive nutrition, but from defective excretion, and consequent accumulation of matters that ought to be expelled the system.

This deviation from health takes place still more gradually than in the former instances. As exercise is the principal stimulant for exciting the various secretions, this state of repletion exists more commonly among the class of sedentary and indolent individuals.

"It is characterized by great sallowness of aspect, and duskiness of skin; the pulse is low and compressible; the surface is in general harsh, dry, and deficient in natural transpiration; the tongue, for the most part, moist and clean; the appetite capricious, often craving and voracious; the alvine evacuations perseveringly foul, and exhibiting no traces of healthy secretion; the urine high coloured, and often excessively fetid: even the perspiration has frequently an offensive odour, and gives a dusky tinge to the linen which absorbs it." 29.

Our author knows of no symptom which so strikingly characterizes this state as the obstinate foulness of the bowels which no employment of purgatives seems capable of correcting.

"If the use of purgatives happily give such relief to the system as to enable it to make an effort towards forming a febrile or inflammatory stage, if the pulse become quicker and firmer, the tongue white and loaded, with such evidences of increased activity of circulation as to warrant the use of small blood-lettings, these, if employed with sound discretion, and adapted to the powers of the constitution, will do more to correct the morbid condition of the bowels, and bring back healthy evacuations, than any use of purgatives, however judiciously managed, or perseveringly employed." 29.

This fact Dr. Barlow has so very frequently witnessed that whenever the bowels are found to resist the purgative treatment, he can confidently recommend a moderate use of the lancet as the most effectual auxiliary that can be employed. This measure, however, requires caution; for if resorted to at a very early period, while the powers of life are still torpid and oppressed, or if pushed beyond the normal line, much mischief may be done, and irremediable exhaustion may ensue.

We must pass over Dr. Barlow's remarks on the treatment of inflammatory affections as they occur in the first condition of plethora before described. They are very judicious, and deserve the undivided attention of the rising generation of the profession. The practice he inculcates is bold and decisive, but it is in circumstances which bear and demand the most vigorous depletion.

We now come to the medical treatment of the second condition of plethora—that in which repletion takes place in a constitution deficient in natural vigour, or impaired by previous disease.

As this occurs oftener than the former, and has a greater number of diseases connected with it, it is of more importance, and requires closer attention. In this, as in the first condition of plethora, the earliest deviation from health is marked by declining power in the general circulation. When this stage of feebleness is prolonged for any time, the defective excretory functions often give rise to more or less excrementitious accumulation, and thus a combination of the second and third conditions results.

"More frequently, however, this feebleness is superseded by increased action, and some congestion, inflammation, or other local malady, becomes superadded. A hard and frequent pulse, increased heat of skin, and whiteness of tongue, mark the formation of the second stage; and if unexasperated by stimulant regimen, this may, in a constitution not predisposed to any particular malady, continue for months, or even years, without specific disease ensuing. I have so repeatedly witnessed this, that I have long been in the habit of distinguishing this state by the term "constitutional inflammation;" meaning therby to designate general inflammatory action in the system, unattended by any local inflammation.

"All the phenomena which belong to this stage are of an inflammatory character: blood drawn frequently exhibits a thick buffy coat, cupped, and with contracted edges; and the treatment of inflammation is that only which affords effectual relief. If taken at an early period, moderate depletion, and antiphlogistic regimen, will speedily relieve it; but if neglected, or improperly treated by tonics and stimulants for any length of time, it becomes more difficult to remove, acquiring obstinacy from its continuance, and

laying the foundation of various specific diseases of the worst kind. The treatment of the several stages will require to be discussed at some length, and copiously illustrated." 49.

That nutritive plethora may, in its simplest form and earliest stage, be relieved by artificial means, without any excitement of the system, our author has unequivocally experienced in his own person; and has thus been able to satisfy himself of a fact which there are few opportunities of witnessing. Here he alludes to the popular belief in the utility of periodical blood-letting in spring and fall, even where there is no disease present in the system, and seems not inclined to question the validity of the belief, or, as it is generally termed, prejudice. "In the luxurious habits of modern times, so conducive to plethora, a discriminating use of this practice might perhaps be beneficially revived."

Under the second condition of plethora he conceives that the congestions and other derangements of minute structure and functions are not to be removed without some effort of the constitution, and therefore that febrile excitement is a valuable auxiliary in effecting recovery. Hence we may often excite and deplete at the same time, without involving any contradiction of principle.

"I am certain, from my own observation, that when the pulse becomes irregular, blood may be taken, not only with safety, but advantage; and that the relief afforded will be speedily manifested by the increased frequency and tone which the pulse acquires. For this purpose the earlier blood-lettings must be small: from four to six ounces is the quantity I usually direct. Its repetition will, of course, depend on the effects; and there can be no more interesting subject in pathology than to mark in the extreme cases of such condition how progressively, under repeated venesection, the pulse rises, and the buffy coat is displayed on the blood. Some striking instances of this kind I have recorded in my former essay. In one, an enfeebled and emaciated boy, labouring under diabetes, lost 209 ozs. of blood in twelve successive blood-lettings; the blood becoming changed from a dark grumous coagulum of loose texture, to the thickest and firmest buff; and the strength of the body increased from feebleness, hardly admitting of an erect posture, to a degree of vigour enabling him to hold the plough for several hours a day. In another, a weakly and delicate female, without any local disease, save alternating pains of head and chest, 106 ozs. were taken in seven blood-lettings, with similar changes in the blood, and as well marked improvement of general strength. This person is alive at the present day, an example of the efficacy of her former discipline; and, excepting a local malady, wholly unconnected with her former disease, is in robust health. Such instances must be deemed conclusive of the soundness of the pathology which I inculcate. Their early symptoms were those of seeming debility; yet if this had been real, life must inevitably

have been destroyed by the means employed to preserve it. If, then, there are states of disease marked by considerable debility, in which the constitution not only bears depletion without sinking, but, on the contrary, acquires very considerable accession of strength from copious evacuations, it surely is of the first importance to medical science that such diseases should be scrutinized, and more adequately illustrated than they have hitherto been." 52.

When, by the judicious combination of small bleedings and moderate excitement, the system is roused to a state of inflammatory action, the treatment will then be obvious enough to any judicious practitioner.

"In judging of its approach, I am influenced more by the state of the tongue, than that of the pulse. When the constitution is assuming a disposition to febrile excitement, ere it is announced by the pulse still feeble and compressible, the tongue presents a peculiar whiteness, strongly characteristic and expressive, being distinct from any obvious morbid secretion, and seemingly belonging to the substance of the tongue itself. It seems in proof of this whiteness not arising from morbid secretion, that I have repeatedly seen it disappear immediately after a full blood-letting. I know not any stronger or surer evidence of inflammatory action than this appearance of the tongue; and I consider that whenever it is present, blood-letting may be had recourse to with little hesitation." 53.

As in this state of plethora a certain degree of excitement is required in aid of early depletion, our author knows of no remedy so suitable for this purpose as the Bath Waters. It is in the various modifications of this constitutional derangement that these waters are so eminently beneficial, combined with suitable evacuations, when low inflammatory action is present.

"When constitutional inflammation is present, and still more when local inflammation is superadded, I have for years been in the habit of bleeding, according to the exigences of each case, without finding it requisite to suspend the use of the waters beyond the day on which the blood is taken. In aid of such depletion the medicine usually administered is, a solution of Epsom salt and tartar emetic, given, in divided doses, as an ordinary saline. By the united employment of this remedy and blood-letting, are patients enabled to continue the use of the waters with safety and advantage under every stage of constitutional inflammation, as marked by a quickened circulation, increased heat of skin, and white tongue, who, if depletions were not conjoined, would be obliged to relinquish the use of the waters for long intervals, and thus be deprived of much of the benefit which the diseases admitted into this hospital so signally experience." 55.

Thus then it appears that blood-letting is a remedy suited to each stage of this condition of plethora. In the stage of

feebleness, when long protracted, small evacuations of blood relieve the oppressed constitution, and enable it to bring out a salutary degree of excitement, so necessary for correcting the derangements of the system.

"When used for this purpose, the early depletions should never exceed a few ounces, from four to six being a full blood-letting. According as the stage of excitement advances, more copious depletion will be not only borne but required. The object of the incipient bleedings is, not to make that impression on the moving powers which is necessary for the abatement of inflammatory action, but merely to abstract a portion of the circulating fluid, and thus lessen the plethora by which the system is oppressed. The blood may, therefore, be taken from a small orifice, and in a recumbent posture. According as the period of excitement approaches, the effect of depletion in hastening its advancement becomes more manifest; and indeed it is a matter of familiar observation to surgeons, that even while the blood yet flows from the vein, the arterial powers so sensibly increase, that the tardy and sluggish stream, which at first only trickled down the arm, becomes converted to a full and vigorous jet, by which the blood is oftentimes propelled to a distance of several feet. When this degree of increased action is displayed, blood may be more freely taken, and antiphlogistic regimen more rigorously pursued." 56.

During the second stage it is clear that the object of venesection is both to abstract blood and moderate inflammatory action. Wholly or suddenly to subdue this action is not intended; and therefore moderate blood-lettings are most suitable. Eight or ten ounces, Dr. Barlow observes, will often suffice, and from twelve to sixteen will very frequently be well borne.

Our author makes many judicious remarks on purging—the evacuation next in power to blood-letting. The term is very vaguely employed, and comprehends processes essentially different. The attentive practitioner knows that some medicines only stimulate the intestines to dislodge their contents; that some cause the mucous follicles to secrete a considerable quantity of fluids—and that other medicines have the power of drawing into action the glandular organs of the abdomen, as the liver, pancreas, &c. and thus of pouring forth various secretions into the intestinal canal to be evacuated per anum. These processes are, of course, very different, not only in degree, but in kind, and ought to be discriminated when we talk of "purging."

"Consistently with these views, it would appear that the most perfect evacuation of the whole canal must be that procured by combining medicines of each class: and we accordingly find the purgatives in most general use so constituted. When full purging

is required, to allay fever, or lessen arterial action, no practice is more common than to give at night a suitable dose of the extract of aloes or colocynth, which are simple aperients, combined with calomel, or calomel and antimony, medicines that produce mucous secretions, and followed next morning with a saline purgative, which, while it accelerates the operation of the previous dose, produces also copious watery stools. When these are not required, but yet a state of disordered intestinal secretion is manifested, it is often expedient to correct this latter gradually, the nature and activity of the cathartic employed being suited to the particular design; and whether it consist of colocynth, calomel and antimony, or rhubarb, blue pill, and ipecacuan, the same principles regulate its administration, and similar effects are produced, differing in degree only.

"With these principles to guide us in the use of purgative remedies, they may be so employed as to be most powerful auxiliaries of blood-letting, for relieving the second condition of plethora in its several stages. In the earlier stage, simple aperients, combined with mercurial and antimonial preparations, in moderate doses, are the most suitable. Accordingly as the febrile stage succeeds, saline purges may be more freely employed; and when local inflammations arise, these latter are indispensable." 61.

These preliminary remarks, and other judicious observations which our author has made on purgatives and sanguineous depletion, clear the way for his investigation of the nature and treatment of some specific forms of disease to which the Bath Waters have been generally found applicable. Of these, Gout naturally comes in for the first share of attention.

GOUT.

All men know that this disease is characterized by a state of vague indisposition, succeeded by local inflammation of a peculiar kind, on the exposition of which, the previous derangements become sensibly relieved, and on the subsidence of which, the general health becomes restored, with the exception of some degree of debility in the affected joints. It is too well known that the intervals gradually shorten, and that the paroxysms leave more and more evident traces of their ravages behind them, till at last the joints become enlarged, stiffened, contracted, and disfigured by calcareous depositions. This catastrophe, however, is pretty frequently anticipated by the occurrence of apoplexy, paralysis, epilepsy, or organic disease of some of the more important viscera —by stone, jaundice, dropsy, &c. Thus the sufferer has not only his own peculiar malady to contend with, but the morbid predisposition to other diseases engendered by this gouty diathesis, and which, if not corrected by suitable regimen, is likely to conduct him to some fatal malady. The complica-

ted histories of gout, with which medical writings abound, are, in Dr. Barlow's opinion, (and we are disposed to agree with him,)" only the endless modifications of the foregoing more simple series of morbid phenomena, to which the differences of age, temperament, modes of life, and other influential accompaniments give rise."

" Viewed either abstractedly or in the aggregate, they exhibit essentially only a plethoric state of constitution passing into one of febrile excitement, and ending in specific partial inflammation. The local consequences of such inflammation are but of secondary importance, for if by judicious medical discipline the constitutional plethora be corrected, so as to avert or mitigate the ensuing inflammation, and if this, when it occurs, receive the decided *relief* which medical treatment is capable of affording, these consequences will either be wholly prevented, or rendered so trifling as to cause little injury. When it is considered that gout may arise under every state of plethora described in the early part of this essay, and that its natural progress has been disturbed, and rendered intricate by greater diversity of treatment than most other diseases have experienced, there will be no difficulty in comprehending how its pathology has been rendered complex and obscure, and its treatment unsteady, contradictory, and unsuccessful." 71.

When gout arises, for the first time, in a constitution otherwise healthy and vigorous, and consequently under what he had described as the first condition of plethora, he has no hesitation in employing the same constitutional treatment that would be resorted to under other active inflammation. In such cases there is a full bounding pulse, hot skin, white tongue, and all the concomitants of active fever. The local inflammation, therefore, he thinks, so far from militating against active depletion, affords a strong reason for promptly resorting to it—" for if not speedily allayed by suitable depletion, severe pain is unnecessarily prolonged, disorganization is hazarded, and greater debility of the parts affected ensues."

" On the first occurrence, therefore, of a gouty paroxysm in an otherwise healthy subject, a full blood-letting should be employed, and the bowels should be freely purged with a competent dose of calomel and antimony, followed by a saline cathartic. If these means succeed in making impression on the system, so as to reduce the pulse nearly to the healthy standard, the general fever should be treated by salines, antimonials, and aperients, administered as in any other febrile excitement. If the pulse again rise in frequency, strength, or hardness, with increased heat of skin, and renewed whiteness of tongue, a repetition of blood-letting and purging will be required." 75.

The only distinction Dr. Barlow is inclined to make be-

tween such an attack and any of the simple phlegmasiæ, would be in the topical treatment—"for I would not abstract blood locally under such circumstances, nor by any direct repellants interfere with the process instituted by Nature, further than the urgency of suffering might demand, which will seldom be extreme, if the constitutional treatment be carried to the necessary extent."

"The converse of this practice, or that which, disregarding the constitutional derangement, directs its efforts chiefly to subduing the local inflammation, has been recommended at different times, and revived of late years, but no practice can be more hazardous, or more at variance with sound pathology." 77.

Were incipient gout, observes our author, always treated by vigorous constitutional means, we should have few victims of reiterated gout, and the disease would soon cease to be the opprobrium medicorum.

When, however, gout arises in habits of inferior vigour, vitiated by other diseases, or broken by the repeated accessions of gout itself, the treatment, though similar in principle, must be greatly modified.

"Before dismissing this part of the subject, I wish to discuss the merits, and point out the proper application, of colchicum, one of the most powerful auxiliaries in the treatment of gout with which I am acquainted. A full dose of this medicine purges copiously, allays pain, and lowers the pulse. These effects are produced with greater certainty if the fulness of circulation be previously reduced by blood-letting, and the mucous secretions of the intestines evacuated. When inflammation is high, as marked by a strong bounding pulse, hot skin, and loaded tongue, blood-letting should always precede the use of colchicum. But in cases where arterial action is more moderate, and direct depletion from any cause questionable, this medicine may be resorted to with peculiar propriety, and eminent advantage. Its operation seems to combine the several advantages of bleeding, purging, and sedatives; and, is, therefore, particularly adapted to those cases where active depletion is inexpedient." 80.

Of the various preparations of colchicum, Dr. Barlow prefers the vinous and spirituous tinctures of the seeds, as being more uniform in strength, and more certain in operation. In cases of active gout occurring in full habits, our author invariably bleeds, and purges with calomel and antimony, before he has recourse to colchicum.

"When colchicum is to be employed, it may be given either in full doses, so as to purge actively, or in divided doses frequently repeated. A drachm, drachm and a half, or two drachms of the tincture of the seeds should be administered at night, and repeated, if ne-

cessary, next morning. This quantity will generally purge briskly; but if it fails, a third dose the following night will pretty generally succeed: at least, I have seldom found it necessary to exceed these quantities. The full operation being thus obtained, I usually continue its use in smaller doses, ordering twenty drops or minims three times a-day in any of the common saline mixtures. Even this dose will occasionally purge so actively as in a short time to require its discontinuance; in which case, the antimonial salines should be given without it, as long as febrile symptoms render necessary." 84.

By such means as the above, Dr. Barlow observes, a paroxysm of gout is effectually relieved, the constitution re-established, the powers of the limb preserved, and the gouty disposition diminished, forming, he thinks, a striking contrast with the inert treatment so long in fashion, by which the paroxysm is prolonged, the constitution imperfectly relieved, the structure of the joints injured, and the gouty diathesis confirmed. But, as was before hinted, this degree of active treatment is only applicable to simple forms of the disease, in vigorous constitutions. The same principles and treatment must be modified to the various inferior grades of the disease by the judgment of the practitioner.

Our author next proceeds to the medical treatment of the third condition of plethora, the general phenomena of which are, a sallow aspect and dusky skin; low pulse, soft and compressible; surface of the body harsh, dry, and unperspirable; tongue moist, clean, red; appetite capricious, often craving and voracious, with an endless train of dyspeptic symptoms; alvine discharges foul, dark, slimy, pitch-like, and not exhibiting the appearance of real fæces; urine high-coloured, depositing more or less of dark fetid sediment; decline of flesh and strength. "The condition itself I believe to arise from the imperfect discharge of excrementitious matters; and the depraved state of the several excretions I regard as resulting from the laboured, though ineffectual efforts of the constitution to accomplish its own purification."

Our author is aware that several of the symptoms above enumerated would be considered indicative of disordered function of the liver—and he admits that this organ is disordered in function, in common with the whole alimentary canal. But he denies that the symptoms point to organic affection, or are owing to any *primary defect*, but are owing to the effort of the constitution to purify a vitiated mass of infirmities. We confess that we do not clearly understand this pathology, and that we are far more inclined to take the simple view of the subject which attributes a good deal of the constitutional disturbance to this functional disorder of the chylopoietic viscera.

"Accordingly as more or less of nutritive plethora becomes combined with this condition, the constitutional efforts increase, and various degrees of febrile and inflammatory excitement ensue. In proportion as this excitement is energetic, and as measures of suitable activity are employed for its relief, so is the vitiated state of the blood corrected, the secretions and excretions improved, while general health and strength amend. The increased secretions from the bowels seem to be the natural discharge by which nature aims at getting rid of such impurities. To promote them, therefore, by suitable purgatives, at the same time supporting strength with a lightly nutritive diet, is the first indication." 91.

When relief, to a certain extent, is thus afforded, the powers of the constitution rally, and a febrile effort is made to assist in expediting the work of purification. As this advances, depletion should be more active, and the diet less stimulating. When sufficient excitement exists to warrant the employment of blood-letting, we may then consider the curative process in the most favourable train. During the early languor, however, of this condition, various tonics and stimulants are found highly beneficial; and our author thinks there is no auxiliary remedy more salutary or better suited to afford relief than the Bath Waters.

"By their external use they purify the skin, and thus tend to restore one most important excretory to a state of greater efficiency; while by their tonic and stimulant properties, so grateful to the stomach, and invigorating to the whole frame, they support it under those curative efforts which medical skill ought to foster and promote." 93.

Dr. Barlow thinks that the more general introduction of vapour baths into this country, such as Mr. Wallace has erected in Dublin, will be of great benefit in the treatment of this class of maladies, as well as of many others. But the great superiority of the Bath Waters consists, he observes, in the peculiar tonic and stimulating properties which they possess when internally administered. Independent of their effects on the stomach and bowels, they promote diuresis, and thus call into increased activity another excretory for depurating the mass of circulating fluids; while by exciting the whole vascular system they powerfully assist the efforts of Nature, in forming the stage of mild febrile excitement, which, as has been formerly observed, forwards more rapidly the work of purification.

Our author returns again to the subject of gout, but we cannot rest any longer on this topic. We shall, however, introduce the following extract before we pass on to other matters.

"Ere the subject of gout is finally dismissed, I wish to offer a few remarks on the effects of mercury in this disease. It is a well-known fact that mercury, taken to the extent of affecting the system, will, in gouty habits, bring on a paroxysm; and the fit thus excited is generally severe. This circumstance seems to have created a strong distrust of mercury, as a remedy in this complaint; and one of our latest writers expresses himself in strong terms respecting the hazard attending its use. My own experience confirms the facts, both of mercury exciting gout, and of the ensuing paroxysm being unusually violent: but it has led me to draw from them a very different conclusion; for I am confident that if such paroxysms are treated on the principles laid down in this work, the recovery, far from being protracted, will be as speedy as under any other circumstances; and that subsequently the constitution will be much more relieved than by a spontaneous paroxysm, though if such attack be consigned to the ordinary course of negative treatment, considerable ravages, and a tedious recovery may undoubtedly be expected.

"The fact appears to me valuable from evincing a power in mercury of exciting gouty action, such as may, on suitable occasion, be beneficially employed. Its indiscriminate use would, of course, be as unwise as abstaining wholly from its employment, merely because under improper management injury had arisen." 106.

Eight cases of gout illustrative of our author's pathological doctrines are given, and to the work itself we must refer for their details.

Rheumatism. In its highest and most acute form, our author observes, there are few diseases which require more decisive bleeding and other antiphlogistic measures. We cannot agree with him, however, that we have the same control over acute rheumatism that we have over the other phlegmasiæ.

"The early depletion should be carried to the extent of making due impression on the constitution, with little regard to quantity. By this means only can blood be ultimately saved; for a single evacuation early in the disease, carried to thirty or forty ounces, and producing syncope, will act more powerfully in subduing inflammation, than one dozen bleedings drained away in small and inadequate quantities. If, at the onset of disease, impression be made by the depletion here recommended, followed up by suitable purging, conducted on the principles formerly laid down, and by other auxiliary remedies, the disease will, in most cases, be speedily brought under perfect control, and one or two small additional bleedings will complete the cure. On the contrary, by trusting to trifling blood-lettings, in the beginning, the inflammation is unrestrained, disorganization goes forward, the general powers sink, and the patient is consigned for life to irremediable decrepitude, if not cut off by a metastasis of inflammation to some vital part." 118.

Our author properly states, that "such active practice is only applicable to those extreme cases which will not yield to milder measures." "In by far the larger proportion of cases much milder means will suffice." The following methodus medendi we can recommend as far preferable, in general, to that by enormous venesections.

"In ordinary cases, I consider from sixteen to twenty ounces a full blood-letting; and in many which occur in the different degrees of the second condition of plethora, twelve ounces will frequently suffice: when carried to the extent of inducing syncope, occasioning perspiration to break forth, or causing the pulse sensibly to falter, a sufficient effect may be considered produced. Soon afterward a full dose of calomel and antimony should be given, and in due time a purging draught. If the violence of attack or intensity of suffering demand it, the calomel should be administered immediately after the venesection, and a purging draught in three or four hours; but if there be room for slight delay, I consider it peculiarly advantageous for several reasons, readily recognised by the experienced practitioner, to give the calomel at night, and the draught next morning.

"The term full dose, when applied to calomel, is, perhaps, too indefinite; the practice of warm climates having of late years rendered scruple or half-drachm doses quite familiar to the ear. Such quantities, however, are very rarely required in this country, and I seldom find occasion to prescribe more than five grains at once, though much larger quantities may, no doubt, be given with perfect safety. This quantity, conjoined with three or five grains of antimonial powder, or a grain of emetic tartar, is abundantly active for all ordinary purposes, and when followed by a suitable cathartic draught, will seldom fail to purge both stomach and bowels effectually.

"The latter being thus thoroughly cleared, colchicum may be freely employed when purging is again required, and in the mean time it should be exhibited, in smaller quantities, conjoined with any ordinary saline febrifuge. I have elsewhere remarked, that I consider from one drachm to two of the wine or tincture of the seeds a full dose, and twenty minims a divided one. It acts in smaller quantity, and with more effect, when the bowels have been previously unloaded of their mucous secretions by calomel and antimony." 121.

It too often happens, as Dr. Barlow justly observes, that the disease is not so easily arrested—that inflammatory fever continues—that the local inflammation shifts or extends—or even metastases to vital organs occur.

"The proper means of treating this disease, under such circumstances, demands serious attention; for by confining the treatment to simple antiphlogistic regimen, however active, disappointment often arises, and recovery becomes tedious. How far the powers of colchicum, which are considerable in assuaging pain, and lowering the pulse, will supply the deficiency of bleeding and purging, I have not experience enough of its efficacy in this respect absolutely to

pronounce; but, from what I have witnessed, I believe it capable of accomplishing much. Prior to colchicum acquiring its present well-deserved reputation, my chief reliance in such obstinate rheumatism as I have just described, was on calomel and opium, employed in the manner described about sixty years ago by Dr. Robt. Hamilton, of Lynn-Regis, and lately noticed with so much approbation by Dr. John Armstrong, in his truly valuable work on typhus fever. By means of calomel, conjoined with opium, given in divided doses, and continued at suitable intervals until the gums become tender, the progress of rheumatic inflammation is arrested, and the disease brought to a termination relatively speedy. My experience of this treatment leads me to recommend it with much confidence, not only in rheumatism, but in any other inflammation, local or general, which resists the ordinary treatment. In acute rheumatism, I would commence with bleeding, purging, and the general antiphlogistic regimen; and if under the active use of these remedies, conjoined with colchicum, impression were not speedily made on the disease, so as to arrest the successive transitions of inflammation, I would not hesitate to bring the constitution under the influence of mercury, by means of calomel and opium. The advantage of conjoining the latter with calomel is two-fold, it acting as a sedative in allaying pain, and by its astringency, restraining the purgative effects of calomel, of which the more certain and speedy absorption is thus ensured." 123.

We can corroborate the above statement by a very considerable range of experience in this distressing disease; and to a neglect of this mode of treatment, we attribute many of those fatal translations of rheumatic inflammation to the heart, which have attracted attention of late years.

The obstinacy of chronic rheumatism, and the celebrity which the Bath Hospital has attained in its treatment, induce us to extract the following account of the methodus medendi pursued in the establishment above mentioned.

"When patients are admitted under chronic rheumatism, if no prominent distress present itself, nor any high degree of inflammation prevail, the bowels are opened, and the bath is prescribed. Should whiteness of tongue and a quick pulse exist, a solution of Epsom salt and tartar emetic is given as an ordinary saline. This gentle aperient abates fever, lowers the pulse, cleanses the tongue, and enables the patient to bear the stimulant effects of the Waters. Under this treatment, essential relief is often obtained. Should local suffering, however, not be abated by these means, if the pulse rise, the skin become hot, and the tongue whiter and more furred, some blood is taken, a dose of calomel and a purging draught are prescribed, followed by a saline mixture with colchicum. The quantity of blood taken is influenced by the patient's strength, and the degree of inflammatory action, and is generally from four to twelve ounces. Should the constitutional disease still resist, mercury is resorted to, and either a blue pill is given every night, a Plummer's pill night and morning: or, if more active measures be required, the patient

is confined to bed, and small doses of calomel and antimony are administered at intervals until the gums become tender. The mercurial effect is kept up for a short time, after which free purging is employed, the bathing renewed, and either bark conjoined with nitre, or decoction of bark with colchicum, completes the cure." 130.

For the stiffness and enlargement of joints that often remain after pain is removed, they found nothing more serviceable than repeated blistering, frictions with tartar emetic ointment or unguentum hydrargyri, champooing, &c.

Consideration of Palsy. Palsy is a disease, our author remarks, which is signally benefitted by the Bath Waters. It is now generally granted that the cause of paralysis, as of apoplexy, is the effusion of blood from some ruptured vessel, or deposition within the substance of the brain or spinal marrow. As perfect recovery can rarely be looked for in serious cases, we can only endeavour, as much as possible, to improve the muscular power, "in which respect the Bath Waters are proved by ample experience to accomplish more than any other remedy." The following extract will show the mode of treatment, pursued in the Bath Hospital.

"When paralytic patients are admitted into the Bath Hospital, my first care is to provide against a renewal of attack, by reducing plethora, and moderating febrile excitement, if manifested by their appropriate indications. A quick and hard pulse, hot skin, and white tongue, call invariably for active depletion. Blood is therefore taken, the bowels are purged, and salines, antimonials, and colchicum administered. When the congestive or inflammatory state is thus reduced, then, but not till then, are the Waters permitted to be used. If febrile excitement is found to continue after such treatment, adequately pursued, small doses of mercury are employed, to assist the constitutional efforts, while blood-letting and purging are renewed as increase of vascular action requires.

"The derangements of the constitution being corrected by such means, the paralytic debility next engages its necessary portion of attention; and so powerful are the Bath Waters in relieving it, that to doubt their efficacy would be blindly and wilfully to disregard the host of evidence which the practice of the Bath Hospital daily supplies." 163.

Eruptive diseases are among those in which the utility of the Bath Waters becomes conspicuous. While our author gives every credit to those distinguished dermologists (Willan, Alibert, Plenck, Bateman, &c.) who have displayed so much ingenuity in discriminating the several species of eruptions, still, he thinks, it must be confessed "that the distinctions so minutely drawn by these distinguished nosologists have alone but little to improve our practice in these diseases; and

as far as regards the great proportion of chronic eruptions, the simple distinction of indolent and irritable, seems to be that by which the practical treatment is most beneficially influenced." So long, he observes, as the general constitution is deranged, it will be in vain, or even unsafe to attempt the cure of chronic eruptions. The first object therefore, is to improve the general constitution, when the local disease will readily give way—except in some chronic eruptions of an inveterate nature.

"Conformably with these views, whenever eruptive cases come under my care, I invariably proceed to amend the general health ere I resort to any specific local treatment, the Bath Waters alone excepted. If a quick pulse and white tongue denote febrile excitement, I direct bleeding, purging, and febrifuge remedies, in conjunction with the bath. When by such means plethora is removed and febrile action abated, I then avail myself of such local treatment as is best suited to each specific malady. In these diseases, mercury, administered either alone or combined with antimony, is peculiarly serviceable. Warm bathing is of considerable efficacy; and I have little doubt that still higher advantages would result if we possessed a course of bathing discipline corresponding to the Russian vapour-bath, and capable of dislodging from the surface the load of dry and hardened cuticle by which transpiration is so greatly impeded. A valuable addition seems to be made to our remedies for cutaneous complaints, in the vapour-bath of Mr. Wallace, of Dublin, which I formerly noticed." 167.

Dr. Barlow's work concludes with an appendix containing a recapitulation of his physiological and pathological principles, condensed in a series of distinct propositions. But this part we need not touch upon, after the very full, and we hope, satisfactory analysis which we have given of the whole work.

VII.

A Practical Treatise on the Symptoms, Causes, Discrimination, and Treatment of some of the most important Complaints that affect the Secretion and Excretion of the Urine. The first head, including Suppression; from Congestion, Inflammation, Calculi, Abscess, or other Diseases in the Kidneys; the Appearance of Blood, Pus, Albuminous Matter, or Gravel, in the Urine; and the various Kinds and Seats of Urinary Calculi. The second, specifying the Circumstances inducing Retention; in the Kidneys, Ureters, Bladder or Urethra; as Old Age, Paralysis, Gouty Spasm, Strangulated Rupture, Tumours in the Bladder, Hernia Vesicæ, Displacement or Pressure of other Viscera, Ruptured Bladder, Inflammation of Urethra, Gonorrhœa, Contusion, Tumours, Enlarged Prostate, Spasmodic, and Permanent Stricture: with Remarks on Puncture of the Bladder. The whole exhibiting a Comprehensive View of the various Diseases of the Kidneys, Bladder, Prostate Gland, and Urethra. Illustrated by numerous Cases, and Engravings. By John Howship, Member of the Royal College of Surgeons in London, &c. &c. 8vo. p. 448, four plates, London, April, 1823.*

It is the object of Mr. Howship, in this work, to bring into as clear and comprehensive a form as possible, the most interesting results of his own experience, occasionally aided by that of others, on the particular subject in question. The disorders, he observes, that regard the secretion and excretion of the urine, from an extensive line, or rather circle of pathological research that has been too much neglected, partly from the feelings of false delicacy that have prevented these maladies from being complained of in their commencement —and partly from the neglect of sufficient post mortem examinations on the part of the practitioner. John Hunter, Sir Everard Home, Desault, and some other writers have done much towards the elucidation of the class of diseases in question; and of their writings Mr. Howship occasionally avails himself; but "the observations adduced, and the principal rules grounded upon them, have been derived al-

* We make it a general rule to give the whole of the title page of a work when it is reviewed; but Mr. Howship must see how very awkward a long title page looks, either in a book, or in a review. We advise authors to avoid the practice of making the title page a table of contents.

most exclusively from his own experience in these diseases." For many of the pathological illustrations he is indebted to his friend and patron Mr. Heaviside, to Dr. Hooper, to the College Museum, and to the Collection in the Military Hospital at Chatham. To the Museum of Mr. Brookes our author also acknowledges himself indebted, especially in the pathology of the kidney.

Such being the substance of the introductory observations we shall now proceed to the practical matter itself.

PART I.—*On the Diseases that Affect the Secretion of Urine.*

THE first chapter is on *suppression* of urine, the symptoms and diagnostic marks of which are laid down by our author with perspicuity and conciseness. The causes of this dangerous malady are considered to be, in general, local congestion, inflammation, calculi, and abscess in the kidney.—He believes with Desault, that Nature endeavours, in such cases, to procrastinate the fatal event by throwing a vicarious urinous discharge from other emunctories, as the skin, stomach, bowels, &c.

"Mention is made by Dr. JOHNSTONE, of a very curious fact, in a case of suppression, in which, 'for some days before death, the skin was all over as white as if it had been powdered. This white dust being gathered, it was found to have the taste of crude sal ammoniac.' The mode in which this was explained, was 'the secretion of urine prevented, the perspirable matter became so supersaturated with ammoniacal salt, that it crystallized upon the skin. But the most singular instance upon record, perhaps, is related by Dr. DAWSON, of a woman, in St. George's Hospital. Her complaints were various and severe, and with other symptoms, after several temporary attacks, came on a permanent suspension of all action in the kidneys, and she is stated to have had a total supression of urine for above fifteen months. During this period, she frequently vomited every day, sometimes every two or three days. If the vomiting came on after eating, what was rejected seemed to be mere urine, without any mixture of what had been taken. By occasional purges and other means, œdematous swellings of the limbs were kept under. Her breasts became ailing, and discharged a watery fluid, which, like the other discharges, had a urinous smell. At length uncommon pricking pains were felt all down the back and loins and about the belly and groin, with great heat. On the second day she voided three ounces of thick slimy matter, with sharp pains in the urinary passages; this water was not high coloured. The next day she passed healthy urine. Afterward she often had a suppression of urine ten or fourteen days, and once for two months, during which she had no vomitings; but her body was very much swelled."* 4.

* Philosophical Transactions.

It must be difficult, we imagine, to determine when suppression of urine owns for its cause *congestion* of the venal vessels, unless where blows or other local injuries have preceded the complaint. In such cases the treatment will be obvious enough.

The causes of suppression from inflammation will be violent impressions of cold—acrid, irritating medicines, as cantharides, turpentine, &c.—the irritation of calculi, or of gout in the system. This last our author considers to be a very frequent cause of the complaint under consideration.

"A case of complete suppression from gout, terminated happily under Mr. HEAVISIDE's care; and was the only instance of recovery from complete suppression, he had ever seen. A general officer, walking home on a cold night from the House of Commons, in full dress, with gout in his foot, the complaint left his toe, and the next day, Thursday, with great pain in his loins, he made a little water, on Friday less, and on Saturday none. On *Sunday*, with Sir FRANCIS MILMAN, Mr. HEAVISIDE visited him: he felt the abdomen, but found no tumour: requested to draw of the urine; he passed a catheter, and found as he expected, the bladder empty. Terebinthinate medicines were directed, and, on taking the third dose, the patient felt desire, and passed nearly a pint of water. Sent afterward down to drink the waters at Bath: he there had a regular fit of the gout, and perfectly recovered." 9.

The appearances on dissection, if notable, will most frequently present some stage or consequence of suppuration, and will rarely be confined to mere vascularity. The treatment, in this kind of suppression, will be the antiphlogistic, of course, as bleeding, the warm bath, mild purgatives, emollient glysters, and demulcent liquids. Blisters, so generally objected to in nephritis, our author has never found injurious, and almost invariably advantageous.

At page 13, our author relates a case where gout made its attack on the kidney, in the marked form of partial suppression of urine; but, shifting to the toe, the renal symptoms immediately subsided.

The third section treats of suppression from calculi in the kidneys. The mode in which calculi act in causing suppression of urine is not well ascertained—probably from irritation. In general, there is either high vascularity of the membrane lining the pelvis of the organ—ulceration of its internal surface—or some other organic injury, when the suppression takes place.

"A woman labouring under these complaints, died with violent pain in the left side. For five or six weeks she had complained of pain in making water, and constantly discharged, with little urine, a large quantity of matter. Her complaints altogether had lasted

seven or eight months. A great quantity of purulent matter was found among the intestines, in the left side of the abdomen: none in the right. The left kidney was almost entirely destroyed by long-continued irritation, and consequent ulceration. Only a part of the pelvis remained, which was thickened, scirrhous, and contained two stones; one thick, and with processes extending into the infundibula; the other, a small calculus. The lower ribs, on which the kidney had laid, were carious. The bladder was healthly, but full of pus." 15.

It is well known that, at a certain period of suppression of urine, the renal affection excites disturbance of the stomach, and this disturbance is usually followed by affection of the head, of a comatose character, and attended with serous effusion within the cranium.

In respect to the treatment of suppression from calculi, the depletory at first, and demulcent or anodyne afterward, will be the most rational. Where little or no pain is felt about the loins, it might be prudent to try the more powerful terebinthinate remedies, carefully watching their effects.

"In the enumeration of symptoms common to suppression, (2,) it was observed to be usually unattended with desire to void urine, and unconnected with tumour in the seat of the bladder. Professor DELPECH very truly observes, that there are cases in which, from one symptom being absent, and another indistinct and obscure, the treatment will require particular care. Thus, retention of urine may be connected with rigid spasm of the abdominal muscles, so as to conceal the tumour of the bladder; and, on the other hand, hysterical affections, with suspended secretion of urine, and at the same time the most incessant and urgent calls to pass water, may be also attended with similar spasms of the muscles and of the lower belly; and this continuing several days, with great pain, and no flow of urine, may lead the attendants to conclude it is retained in the bladder, while the tense abdomen prevents the detection of the tumour." 17.

Mr. Howship has known considerable relief obtained by keeping up a drain, by issue or blister, from the loins. Some cases in illustration are adduced by our author, and to these we must refer the reader for particulars.

Mr. Howship devotes a pretty long section to abscess of the kidney and illustrative cases, which well deserves the practioner's perusal. It is, however, not adapted for analysis. The following case is so extraordinary, and involves so interesting a problem in physiology, that we shall give it entire.

"A young lady, aged 24, first observed an enlargement in the abdomen, in 1816, slowly increasing, till it equalled that of an eight months' pregnancy; which tumour, with occasional variation, remained. *November* 5. 1818. she first had retention of urine, for

which, a catheter was passed, and two quarts of water drawn off. The instrument was regularly introduced, but the quantity of urine decreased, so that on *November* the 10th, only a dessert-spoonful passed. This state of things continued till the 8th of *December*, while powerful medicines were given, the warm bath tried twice, and electricity four times, with little benefit, as there never was more than an ounce or an ounce and a half of urine drawn off every two or three days. But on *December* the 8th, a sudden influx took place, and lasted 20 days, during which 17 gallons, and half a pint of water passed from the bladder by the catheter. *December* the 29th, the urine again ceased to flow into the bladder, and so continued till *March* the 2d, 1819, except on two days, (the 1st and 2d of *February*,) on which days, one pint a day was drawn off. From *March* the 2d to *April* the 6th, a tolerably natural quantity of water was voided by the catheter. From *April* the 6th to *May* the 30th, no water flowed into the bladder. The catheter passed once in two or three days, scarcely a tea-spoonful was ever found. Towards the close of this period, however, a new change took place, for, *May* the 25th, a discharge of water came on, *by the bowels*; and between the 25th and 29th, 16 pints of water were passed. This ceased the day before the next influx into the bladder, which, as before stated, was on *May* the 30th. The discharge of water from the bladder now continued till *June* the 10th. During this period, ten and a half gallons of water passed, most of which was forced from the bladder by violent spasms. The cessation of flow into the bladder had returned only two days, when the urine again found its way *by the rectum*, and so continued till *August* the 12th, during which time seven and a half gallons were voided. An influx now again took place into the bladder, and continuing six days, near eight gallons were drawn off by the urethra, and one and a half gallons passed by the *bowels*. After the water ceased to flow into the bladder, ten and a half pints again passed by the bowels, five and a half on the 19th, and five on the 20th of *August*, when the retention returned, and no urine passed either way, till on *September* the 8th, she wrote to Mr. Heaviside 'That she could not help fearing, from her present sensations, that an influx was again about to take place in the course of a day or two.'—*September* 14th. Within the last three days, the influx having taken place as she predicted, twenty-two quarts were passed from the bladder in occasional spasmodic gushes.—*December* 6. For four days in the last week, she passed *two gallons of urine a-day by the rectum*, while for the preceding fortnight, not two table-spoonfuls in the whole either passed by the bowels, or reached the bladder.

"*May* 21, 1821. Mr. Heaviside said she remained just the same; sometimes not voiding a quarter of a pint in a fortnight, and then either by the rectum or bladder, three or four gallons in a day.

"*August* 17, 1822. Mr. Heaviside acquainted me the above complaints remained much the same, the general health being perfectly good. Sometimes two gallons of urine a-day were voided by the bowels; and sometimes when the influx had taken place.

unless regurgitation occurred, the urine was obliged to be drawn off, four or eight ounces in the day; but if the influx happened in the afternoon, and her surgeon was prevented calling the same evening, by the next morning regurgitation had taken place, and not a drop was found in the bladder. This had happened very frequently. 50.

As there can be no idea entertained of a direct communication, in this case, between the bladder and rectum—and if Mr. Howship's and Mr. Heaviside's statements be correct, that *urine* was passed by the *rectum* on several occasions, it must follow that a regular secretion, for instance, urine, may be taken up from its proper receptacle, and discharged unaltered by some other outlet—or, that a *vicarious* secretion *similar to the natural one*, may take place in the system. Considering the litigations which this question has undergone, and the acrid controversies to which it has given rise, we think Mr. Howship was bound to ascertain the fact stated above in a manner that might have settled the dispute. We hope he examined and analyzed the *urine* that came per anum—for if it was really urine, it might have been equally as well deposited in the stomach, or any other part of the body.

Chap. II. *Morbid Appearances in the Urine.* The first section of this chapter is on bloody urine. Although where this proceeds from the kidney, there is generally some injury of its internal cavity, yet it does not necessarily follow that there should be rupture of vessels. The exhalents, and the secreting vessels of the kidneys have been known to pour out pure blood. The occurrence, however, is comparatively rare. The phenomenon usually depends on some disease of the urinary apparatus or foreign body lodged in some of the passages. The cause, therefore, must be sought out, and then the proper remedy will be evident enough. Several interesting cases are related by our author in this section.

The second section is on the appearance of *pus* in the urine. It is not easy here, or indeed any where else, to distinguish pus from mucus. It is observed by Desault, that purulent matter does not, in every case, arise from disease in the urinary organs themselves; for that numberless observations show how readily acute diseases establish their crisis by the medium of this appearance in the urine. The same author adds, that a great number of facts attest that matter deposited in the lungs, liver, or any other part of the body, is capable of being carried by metastasis to the kidneys, and evacuated with the urine. As for Mr. Howship himself, although he has often seen these critical depositcs in the urine, they have always consisted of some variety of albuminous

matter, generally of a farinacious appearance, or of a pink sediment, or some modification of gravel. Nor has he seen an unequivocal instance of the contents of an abscess being transferred from other parts by metastasis to the kidneys.

"The doubts just expressed in relation to critical deposites by the urine, apply equally to many of the appearances that originate in irritation of the membrane lining the cavities either of the kidneys, ureters, bladder, or urethra. Where, from inflammation, abscess of these parts takes place, and from breaking inwardly, the contents are evacuated with the urine, the matter will of course be, strictly speaking, purulent. In gonorrhœa, also, I am aware the discharge, without breach of surface, is purulent, because I have seen, as well as others, that under the microscope, it is impossible to distinguish this matter from that of an abscess, the contained globules, as to number, colour, and magnitude, being precisely the same in both cases, that is, nearly similar to those found in the blood. But in most of those complaints in which the urine is clouded, in consequence of some irritation in the kidneys, the substance deposited will be frequently very apt to be mistaken for pus, while, in fact, it only resembles it in colour. Examining some such urine very lately, I found the sediment extremely tenacious, of a deep yellow colour, and even consistence, circumscribed, partly suspended in the urine, like a little undulating cloud, and partly attached to the bottom of the vessel. It appeared to me a muco-purulent matter; but on the effusion of a quantity of hot water, the whole became slighty turbid; in a few minutes the fluid cleared, was poured off, and on examining the sediment, which answered to the quantity of the previously existing cloud, it proved to be a fine, dense, beautifully white, flocculent, albuminous substance, before disguised, but now destitute of any trace of resemblance to purulent matter." 66.

The third section of this chapter is on the appearance of *albuminous* matter in the urine. This is a very frequent occurrence, and is sometimes not to be detected but by chymical analysis. It is, however, only when it is apparent to the eye that our author applies the following remarks:

"The most frequent and least important cause of this appearance is the occasional effect of common cold, in which, after a sense of weight and irksome uneasiness about the loins, the urine is voided turbid, but on standing deposites a greater or less quantity of fine whitish-coloured flocculent matter, not very much exceeding in specific gravity the fluid in which it slowly subsides; generally disappearing in the course of a few days.

"Analogous to this appearance, is that which is observable upon the crisis of feverish indisposition. In these affections the sediment is generally tinged more or less decidedly either of a pink, or a dull red colour; the principal seat of irritation, in all these cases, I believe to be the mucous membrane lining the cavities of the kidneys.

"An attack of gout is commonly productive of some disturbance

to the circulation through the kidneys, being attended with a flocculent pink coloured albuminous deposite in the urine. It also occasionally happens, that from some accidental circumstances, the gouty action is in a more direct manner transferred to the kidneys, and the consequence is more considerable disturbance, or a complete suspension of their functions." 70.

Deposites of the kind in question are occasionally observed in the urine from temporary irritation at the neck of the bladder. A transparent and extremely viscid albuminous substance, also, occurs in urine, yet not derived from affection of the bladder, but from enlargement of the prostate gland.

"According to my experience, in the former case, this appearance of transparent matter has been only occasional and transitory, furnished in small quantity, not perfectly pellucid, of low specific gravity, and not very tenacious; in the latter it is, on the contrary, a permanent appearance, furnished in much larger quantity, beautifully transparent, of high specific gravity, and so tenacious as to admit of being raised in threads several feet in length. M. DESAULT considers that 'Les urines glaireuses sont un symptome propre aux affections de la vassie.' A conclusion which I believe to be at variance with the general results of English practice; it may, however, perhaps, be explained by taking into account the difference of climate and modes of life in France and England; circumstances calculated to qualify the state of constitution, and influence the appearances of disease, as well as the functions of health." 74.

The treatment of these albuminous deposites in the urine will vary with the cause. It will generally be found that the membrane lining the internal cavities of the kidney is suffering some irritation, independent of ulceration or calculous tendency.

"Under these circumstances, I have occasionally found various medicines useful, although it is extremely difficult to lay down any general rule for their application. In one instance opiates and other anodynes were sometimes conducive to comfort, but the most powerful and permanent relief was derived from the recently expressed juice of the lemon. (104.) In other instances, no medicines have appeared to me capable of making any decided impression. Tonics in general, I am inclined to believe, are among the most useful means. Preparations of steel, particularly the muriated tincture, have obtained, in these complaints, a very high character with some excellent practitioners, particularly with Dr. HOOPER: and I have certainly sometimes, though not often, directed them with advantage." 75.

Some good cases are appended to this section by Mr. Howship.

The fourth section is on the *appearance of gravel in the urine*. The morbid affections of the urine above described may oc-

cur either as the consequence of accident, or the effect of disease; but other depositions are observed, that show some derangement in the functions of the secreting vessels of the kidneys—"probably connected with imperfect assimilation of some of the principles of the blood." Our author considers the profession greatly indebted to the researches of Wollaston, Brande, Marcet, and Prout, though it is to be confessed that many points in the history and treatment of calculous disorders yet stand in need of elucidation. We must pass over a great portion of Mr. Howship's work on calculous affections, as he does not profess to exhibit any particular discovery or new information on this subject—though he brings forward much valuable matter for the perusal of the junior branches of the profession.

At page 155 of this volume, Mr. Howship enters on the consideration of "irritable bladder"—a troublesome and important disease. The symptoms are well known to be more or less of uneasiness in the organ, attended with increased frequency in making water, and a discharge of mucous or albuminous matter from the membrane lining the bladder. Sometimes the above symptoms are attended with urgent tenesmus and straining, so much aggravated in the expulsion of the last drops of water, that the turged vessels on the membrane lining the neck of the bladder occasionally give way, and hæmorrhage follows. Mr. Howship here enters into a consideration of *wounds* of the bladder, quoting freely from Larrey and other surgical writers. This is against all arrangement, and embarrasses us exceedingly when attempting to follow up the leading subject of the section Wounds and other injuries will doubtless prove causes of irritable bladder, which is not a disease then, but a symptom; and it is not necessary to go into the minute history of those primary affections of which irritable bladder is only a sequence.

Our author considers cold as only rarely a cause of irritable bladder. "A much more common, and indeed one of the most frequent causes of irritation in the bladder is a disposition to deposite gravel in the urine." Affections of the neighbouring parts, as of the prostate gland, uterus, vagina, or rectum, will occasionally produce the complaint in question.

"The coats of the bladder sometimes become subject to spontaneous disease. When the inner membrane alone is thus affected, it commonly exhibits either effusion, ulceration, or circumscribed tumors, generally prone to assume, sooner or later, the characters of fungous disease. An instance of this, connected with extreme irritation from gravel, will be presently related; and Mr. Watson mentions opening the body of a middle-aged man, whom he sounded in

his lifetime for stone, but could find none. He had, however, the symptoms of stone, and frequently passed bloody water, especially for many days before death; which took place from inflammation in the bowels. On examination, the left kidney was small, extenuated, and internally formed into lobuli, but containing neither stone nor gravel. The urinary bladder was flaccid, and almost empty. On cutting it open, 'it was full of fungous tubercles.' The prostate gland was greatly enlarged and indurated." 165.

Le Cat relates a terrible case of this disease in a female, who had long suffered from pains in the back and loins, with pain and irritation in the bladder. These symptoms were referred to calculus, but the sound gave no satisfactory information. The surgeon, however, at last cut into the bladder with the hope of finding a stone, or, at least, of removing fungous excrescences. No stone was found, but several clusters of excrescences were felt, one of which was of firm texture. Many of these were extracted with the forceps. The patient suffered extreme pain, and violent fever followed, of which she died.

Mr. Howship does not lay down any distinct principles of treatment, concluding, we suppose, that the cases in illustration will be sufficient. This, however, precludes us from giving a connected review of the work. We shall here introduce a single case, because it is a good specimen of those troublesome affections about the urinary and genital organs which we often meet with in young persons, whose generative apparatus is under a morbidly irritable condition.

"*April* 20, 1821. I was consulted by a young gentleman, who had lately graduated in the University of Edinburgh. His complaints were a perpetual source of distress. From early youth, of irritable habit, he had been subject to frequent nocturnal emissions, occasional sharp pain in the glans penis, and acrimony of urine; these circumstances he sometimes attributed to close study, at other times to bad digestion. Frequently he felt dull aching pain in the perineum, after some months extending itself by degrees to the bladder. He thought the bladder easiest when empty, but scarcely uneasy when it contained a pint of urine: he never had occasion to pass it, during the night. Female society produced a painful sense of fulness and distention in the parts. The urethra and bladder had been repeatedly examined by elastic bougies, and by the sound. These examinations had always aggravated his sufferings. In conclusion, he had been much in the habit of taking opium, as it had afforded him a certain degree of relief. I requested him gradually to diminish his usual dose of opium; and directed some mild aperient medicines.

"*April* 28. Extreme uneasiness, and a most distressing sense of fulness in the perineum, had induced him to apply leeches, affording partial and transitory relief. He had been recommended warm baths, but as they uniformly made him worse, he laid them aside.

"In the beginning of *May* he left town for the West of England; where, at my request, he bathed several times in the sea, and took the muriated tincture of iron. He wrote to me on the 15th, stating what he had done, and adding that his distresses were rather increased than diminished; that he found himself much weakened by the harassing nature of his complaints. After bathing he experienced the glow of reaction, but felt nevertheless an absolute increase of pain in the bladder, and discomfort during the day. After expelling urine, he still felt the pungent stinging pain, almost spasmodic, in the glans; with increased aching in the perineum. The urine had long contained small filamentous appearances, and now exhibited these appearances more evidently. The functions of the stomach were badly performed, and the steel, not agreeing well, he had laid it aside, substituting the bark. He particularly entreated to know, if I thought his complaints could depend on calculus. In my reply, I assured him I had no idea of any disposition to stone; but that I believed his complaints arose from a partial congestion of the vessels upon the inner membrane of the neck of the bladder, and prostate gland, in connexion with an irritable state of the seminal ducts, opening into the prostratal part of the urethra, and nothing more; and that I would recommend him to lay aside sea bathing, but to continue taking the bark.

"*Oct.* 31. He wrote, expressing much regret at not having continued the means directed, he said he had tried fifty plans, and adhered to none; adding that he had been punished for his unsteadiness. The urethra was now so extremely irritable, he felt sorry I had not thought it right to pass a bougie for him when in London; and operation which now he said was scarcely practicable. A diminished stream of urine, a diffused pain in the bladder, the old pain at the glans, frequent emissions, general debility, and impaired digestion, formed his present list of complaints.

"The concluding part of his letter, however, was the most important, in which he said 'caustic has been proposed, and has been once applied, near the bulb, the other two strictures being passed more readily; but as yet without mitigating the symptoms. I am in doubt whether to have it employed again, or any other application.' To this I replied, that I should unquestionably advise him to come up to town, before any thing more was done.

"*Nov.* 14. He reached London, and to satisfy his mind, I at once passed a fair-sized bougie with perfect ease into the bladder. I carefully examined the bladder from the rectum, by the finger, ascertaining the condition of the more remote parts of the bowel by other instruments; without discovering disease, contraction, or irritation. The prostate gland and bladder felt very healthy; and the intestine, for eleven and a half inches of its extent, was perfectly sound. He could scarcely, however, believe the urethra free from stricture, and was therefore particularly desired not to leave town without another opinion, to which he assented. I therefore met the late Mr. Wilson in consultation, who passed a full-sized silver sound at once into the bladder. It satisfied him, and he now de

clared with amazement, that more than twenty surgeons at Bath, Bristol, Clifton, and elsewhere, had passed bougies for him, without one being able to get beyond the bulb: while most of them agreed there were three strictures.

"The derangement in the association of the natural functions of the generative organs, was regarded by Mr. WILSON, as it had previously been by myself, as the true cause of all his complaints. He consequently gave him the same opinion he had before received, which was to avoid risk, and obtain comfort and security, by determining to marry early; regarding such change in circumstances, as a measure most likely to bring the functions and feelings of the system progressively round to their natural and healthy state; assisted occasionally by tonic medicines." 184.

We come now to Part II. of the work before us, the first chapter of which is on incontinence of urine—a complaint occurring principally in youth, although not unknown in later periods of life. The involuntary discharge of urine, during sleep, has been variously accounted for—our author thinks that—"a moment's consideration will clearly explain it." We shall allow Mr. Howship to give his explanation in his own words.

"The general muscular coat of the cavity of the bladder may be regarded as an involuntary muscle: while, on the contrary, the circular band of muscular fibres surrounding its neck is, to a certain degree, obedient to volition. Now we know very well, that a state of repose relaxes very much the whole system of voluntary muscles, exerting little or no influence over the system of involuntary movements. Upon this principle, it is evident an involuntary flow of urine might more readily occur during sleep, than while awake. There is, however, I believe, another circumstance tending to explain how it happens. In the majority of cases, the early age of the child prevents the ascertaining whether the urine flows during a state of positive oblivion, or whether this event takes place only under some particular mental impression. The latter state, I rather believe, is mostly an invariable condition. Intimately acquainted with a young person, in early youth long subject to this habit, he mentioned to me one circumstance that, upon these occasions, had often struck him as curious; it was, that he never at any time wetted the bed, unless when engaged in a dream he felt the accustomed uneasiness from desire to make water, and fancy, immediately supplying what was wanting in time and place, the act of voiding it became, in point of fact, as perfectly voluntary as at any other time." 203.

Mr. Howship observes that incontinence of urine in young persons is, in general, very easily removed. "All that is commonly necessary is to stimulate, to a certain degree, the neck of the bladder; and this is most conveniently accomplished by the application of a small blister to the loins, or, if that fail, to the perineum, the blister being for some time

kept open, and dressed occasionally with the unguentum lyttæ." The same treatment is recommended where the complaint occurs in the adult subject, induced by fatigue of parts, from excessive debauchery, or perhaps the consequence of a slight paralytic affection. The cases we must pass over, referring the reader to the work itself for the particulars.

The second chapter is on retention of urine. Of retention in the ureter and kidney a number of examples are cited from different authors, in addition to our author's own range of experience. On retention in the bladder, we meet with many judicious observations; but they are more adapted to the junior than the senior branches of the profession, as containing plain elementary, not novel matter. It is on this account that we are obliged to pass over the greater part of the work entirely unnoticed in our review.

Gonorrhœa. Mr. Howship observes that it would be very easy to enlarge upon the subject of gonorrhœa; but that it would be unnecessary, "as the whole that is at present known, of practical importance, may be said in very few words." "It is clearly established," says he, "that the same matter which in one person produces gonorrhœa, will, in another, produce chancre; and that this difference depends on the disposition of the habit to favour the production of the one in preference to the other effect, of the venereal poison." We were not aware that this point was "clearly established"—on the contrary, we believe that the predominant feeling is against this identity of poison. If they were the same, we should in almost every case have the two forms, as all the parts are equally exposed; whereas we very rarely have the two forms in one individual.*

"As to the nature of the matter discharged in gonorrhœa, I have repeately examined it under the microscope, as well as most of the other varieties of purulent and albuminous excretions from mucous and ulcerated surfaces, without having been able to perceive any essential difference between pus taken out of an ulcer, and pus excreted from the surface of the inflamed urethra in gonorrhœa." 260.

---

* We quote the following passage from the latest systematic work in our own language. "We are chiefly indebted to Mr. Hunter for having pointed out the distinction, (between the poisons of syphilis and gonorrhœa,) and there is now scarcely an individual who has any doubt upon the subject, though there are several who conjecture that it has been derived from the syphilitic venom changed and softened in its virulence by an introduction into different constitutions. These conjectures are harmless, but they have little ground for support." *Good's Study of Medicine, Vol.* IV. *page* 78.

We shall give our author's practical indications in gonorrhœa, which are, upon the whole, judicious.

"Upon the first accession of the symptoms, the patient should place his diet under some restriction, dependent on state of constitution. If plethoric, he should lay aside or take but little wine or malt liquor, using little exercise, with an aperient draught night and morning. If the habit of body is less disposed to excitement, the restrictions may be less rigidly observed; but the bowels still kept open, with care to avoid fatigue.

"As the complaint advances, the symptoms increase, and chordee becomes generally one of the most incessant sources of distress. In this stage, leeches may, in some cases, be applied with advantage, aided by light, saline, diaphoretic, and aperient medicines, directed at short intervals. The taking only mucilaginous decoctions, avoiding animal food, and keeping quiet, will generally procure much relief. Should these means not succeed, an anodyne draught will frequently operate well, in allaying irritation, and procuring quiet repose.

"Some practitioners are in the habit, from the first, of directing the liquor potassæ, continuing its use till the decline of the inflammatory symptoms. This medicine, however, is extremely uncertain in its effects. I have, in some cases, found it answer very well, but in others, it has excited uneasiness and irritation about the neck of the bladder, and more than once, much difficulty as well as straining, in voiding the urine. So that where I now direct this medicine, it is always in combination with some aperient, to prevent its remaining long in the bowels.

"Where the symptoms have reached their highest point, and are upon the balance towards decline, they will, for a short time, require more close attention. If the least constitutional disturbance, fulness of pulse, heat of skin, or thirst occur, the diet should be rendered still more abstinent, and the diluent system be brought still further into adoption.

"Should there, at this period, be any manifestation of increased uneasiness or tumour about the deeper seated parts of the urethra, no time must be lost in preventing the continuance of such tendency; by confinement to bed, with saline diaphoretics in the strong, and compound powder of ipecacuanha in the weak; and also by the free use of various farinaceous decoctions. Where the continuance of these means scarcely arrest the progress of the threatened evil, leeches upon the parts, or cupping-glasses near them, must be directed; followed by fomentations." 270.

When, in the course of a few weeks, and by the treatment just described, the inflammatory symptoms subside, and yet a discharge continues, our author ventures cautiously on terebinthinate or balsamic remedies, and has found himself generally successful.

The remainder of the volume is on retention of urine from various causes, as spasmodic and permanent stricture, &c.

and as the cases form the principal feature, we find it impossible to give a connected analysis. The matter is very valuable to the practitioner and to the student, and to these we recommend the publication, not as containing much novelty, but plain and useful directions, solid and authenticated facts. It is hardly necessary to say that the plates are admirably executed.

VIII.

Medical Jurisprudence. By J. A. PARIS, M.D. F.R.S. F.L.S. Fellow of the Royal College of Physicians; and J. S. FONBLANQUE, Esq. Barrister at Law. In three Volumes, 8vo. London, 1823.

LAW and Physic have here joined hands, for the first time, we believe, in this country. Well! far be it from our wish to break either law or love matches; but still we adhere to our former opinion that there is no *necessary* connexion between the medical evidence delivered in a court of justice and the legal award that awaits the case. We will just take one or two examples from among those events which most frequently bring the medical practitioner in contact with the gentlemen of the long robe—viz. infanticide and poison. Will all the legal knowledge in Coke upon Littleton assist the physiologist in ascertaining the marks of life or causes of death in the one case;—or in detecting the poisonous substance with its train of consequent lesions in the other? In various countries there are various laws and various punishments for the same crime; yet the bearings of the physiological or pathological question are not affected thereby. We conceive that the justiciary consequences of crime or guilt, be they trifling or terrible, should have no operative influence on the medical investigation. If it were asked by the judge —"Sir, are you aware of the vast importance which attaches to your evidence in the case before us?" This would be the answer—"Sir, I am aware only of the importance of *truth*, and to that I shall adhere, divesting my mind of all consequences that may result from that truth being made evident."

We find that Sir William Blackstone entertained opinions similar to our own. "For the gentlemen of the faculty of physic," says he, "I must frankly own that I see no special reason why they in particular should apply themselves to the

study of the law; unless in common with other gentlemen, and to complete the character of general and extensive knowledge—a character which their profession beyond others has remarkably deserved." It is true, Sir William afterward hints that it would be no bad thing if physicians made themselves "*acquainted with the doctrine of last wills and testaments*;" thereby insinuating, we suppose, that the doctor should make the patient's will before he writes the prescription—a precaution which we admit to be very proper on many occasions. We must say, however, that if some doctors were obliged to draw up the last testaments of all the patients for whom they sign passports to the shades below, they would have work enough on hand.*

The authors of the work before us have given some curious reasons for the study of the law in connexion with medicine; among other this—that an accoucheur "unacquainted with the law of tenant by the courtesy," would be unable *to satisfy* his own conscience, ten years subsequent to an accouchment, if called upon to say whether the child was born alive or dead—and why?—because if unacquainted with the above law he—"would scarcely note whether a child, certainly dead within a minute of its birth, did, in that period, move a limb or open an eye." This is nice navigation! Another reason for this junction of law and physic will seem rather unsatisfactory to all those who reside beyond the sound of Bow Bells.

"Can the President and Censors of the College of Physicians execute their power of fine and imprisonment; can they restrain unlicensed intruders, or *punish the bad practices of ignorant pretenders*, without some study of the law?" *Introduction.* xlvii.

That the College of Physicians will watch over their rights and privileges without any other stimulus than their charter, we have not the smallest doubt; but that the whole of Black-

---

* The above sentiments coincide with those of one of the best writers on Medical Jurisprudence which this country has produced—Dr. Gordon Smith.

"In the courts of Great Britain, the physician appears for the most part in the simple capacity of a witness. He is generally examined *viva voce*, either as to his knowledge of a particular event, or his opinion on a fact that may be submitted to him; and to this exposure every member of the profession is equally liable. He is required to prepare himself by no course of study foreign to that of his proper profession, and to observe no formalities, but those of prudence and decorum. Juridical disputation and legal casuistry can hardly combine with medical reasoning, or illustrate the laws of our physical economy. It is the *prudentia Medicinæ* rather than the *prudentia Juris* that we are bound to cultivate—even with a view to Forensic application." 3.

stone's Commentaries would induce, or indeed enable them to "*punish the bad practices of ignorant pretenders*," no man in his senses could for a moment suppose.

Our authors, in fact, are able to adduce but a few vague, general, and unconvincing arguments in favour of this union of legal and medical knowledge in the physician or surgeon, and therefore, we shall make but one more remark upon the subject. We have not the smallest objection that those, whose genius and talents are sufficiently comprehensive, should embrace the whole circle of the sciences—with this short proviso, that they first make themselves master of their own profession. Now, as the phenomena of disease and the operation of remedies alone, would require a whole life time to be well familiarized to the practitioner, we submit it to his prudence whether he should squander his time upon *legal* studies, that he may never have any occasion for, when such various and important branches of his own profession require his unremitting cultivation.

But while we object to the study of the law as a *necessary* branch of medical education, we urge the propriety of studying what is called forensic medicine, with more assiduity than has yet been manifested in this country. Not that we can coincide, in the following too sanguine statement of our authors.

"So rapid, however, has been the progress of the leading branches of medical knowledge during the last ten years; and so successfully have they disentangled themselves from the many fatal fallacies with which they were encompassed, that the general prejudice against their practical utility, in advancing the administration of justice, must gradually subside, and the study of forensic medicine become universally popular." *Introduction*, xxviii.

We should consider physiology, pathology, and therapeutics as among "the leading branches of medical knowledge;" but we confess we have looked around us in vain for those gigantic strides in these or indeed any other branches of medical science, which are said to have been made during the last ten years. Even in chymistry, the most progressive of all the collateral branches of medicine, we have not heard of any very recent and brilliant discoveries that are likely to "advance the administration of justice," unless it is that of Mr. Farrady, who, say our authors, "by a happy generalization has annulled the supposed characteristic distinction between *gas* and *vapour*."*

With the view of arousing our brethren to increased ener-

* Introduction, p. 42.

gy in the study of legal medicine, we propose to carry the subject through several of our succeeding numbers, by which means we shall be enabled to lay before our readers so very comprehensive an analysis of the interesting work under review, as shall form in itself no bad epitome of the subject, and thus secure a wider and more general perusal of the various topics discussed than has perhaps ever been effected before in this country and its scattered dependencies. We do not despair of presenting a connected and tolerably clear view of these volumes, because we perceive that, whether from the contagion (we may safely use this term as there is actual *contact*) of legal circumlocution, or some other cause, the language, though always easy, and sometimes elegant, is far from that terse and idiomatic style which best suits an elementary and didactic work in any science. For the reasons already stated we shall be very sparing of the purely legal portions of the volumes before us, and indeed of some other portions, to which we imagine our authors have attached unnecessary importance, as will be shown anon.

The work is divided into three parts—the *first* comprehending the enumeration of the different medical corporations, with an account of their charters, powers, and privileges, together with the subjects of medical police. The *second* comprehends all those subjects connected with medical evidence, as applicable to civil and ecclesiastical suits. The *third* discusses the inquiries which are necessary to medical evidence, as applicable to criminal cases.

Of the 71 pages dedicated to the three medical corporations of physicians, surgeons and apothecaries, 53 pages are appropriated to the College of Physicians,* 5 to the College Surgeons, and 13 to the Apothecaries.

We are of opinion, and the public will easily decide, that our authors have shown rather too much anxiety to bring forward all the old records, charters, and laws of the College of Physicians. They have much overdone the thing, both in matter and manner, the latter of which is, in many instances, such as to generate more gall than good humour among the members of the profession practising as physicians in these realms by virtue of different diplomas. We are extremely sorry to see this, because we profess ourselves friendly to the constituted authorities and regular institutions, regarding them as the best bulwarks against empiricism, and the surest means of raising the science in the eyes of the world. But we wish

* In the Appendix, No. I. there are about 150 pages more dedicated to college affairs.

also to see the College of Physicians (and we acknowledge with pleasure that the great majority of its fellows do so) enjoy their rights, privileges, and prerogatives, with that sense of dignity and urbanity which comports with a liberal and enlightened profession in the nineteenth century. But to our subject.

It was our Eighth Henry who first granted a charter to the College of Physicians, in the year 1523. We shall not stop to pourtray the different clauses, nor pry into the state of physic which first rendered a corporate body of this kind, with exclusive powers and privileges, necessary. It is evident that the charter empowers them to make by-laws from time to time, "for the good government, superintendence, and *correction*, not only of the College, but of all persons exercising the faculty in the city, or within seven miles thereof." Those who choose to resist the College must pay a fine of five pounds per month during the time they practise within the above boundaries. It appears also that the censors, for the time being, shall have "the superintendence, correction, and government of *all persons exercising the faculty of medicine in any manner* (aliquo modo frequentantium et utentium) in the city and within seven miles thereof, with powers to punish for mal-practice, and with power of superintendence and scrutiny of all medicines and their administration, provided that the punishment should be by fines, amercements, imprisonment, and other reasonable modes." Now, to our apprehension, the above clause completely embraces the means of suppressing quackery in almost all its shapes; and in the name of humanity, we entreat the censors of the College to set about the good work of eradicating these pests of society.* The following quotation will be read with no small interest, and, we should suppose, with some consternation, by the graduates of Edinburgh, Glasgow, &c. now practising in England.—

"The concluding section of this act is important, as it evidently repeals so much of the 3 *H.* 8. as refers to physicians, enacting, 'that no person from henceforth be suffered to exercise or practise

* On proceeding farther, however, we find that this statute or clause is unavailable, for in the case of the College versus Rose, the decision of the House of Lords reversed the sentence of the Court of King's Bench, which had fined the said Mr. Rose in a penalty for administering medicines by his own judgment, and without the advice of a physician. We may here also remark that it does not appear that the College can now amerce an unlicensed practitioner in 5*l.* per month, but sue him at common law for the same. This of course, would run up the expense to a great amount, as the defendant would be sure to be fined with costs at each suit.

in physic through *England** until such time as he be examined at London, by the said President and Three of the said Elects; and to have from the said President or Elects Letters Testimonial of their approving and examination, except he be a Graduate of Oxford or Cambridge, which hath accomplished all Things for his Form without any Grace." 17.

Of the history of the litigations between the Fellows and Licentiates of the College we shall take little or no notice. We are sorry the authors of these volumes should have brought up the subject at this time of day, filling whole appendices with trials that ought to be buried in oblivion. We think the republication of these trials, and the various charters and by-laws on which they were founded, a waste of paper, to say the least of it; because, we think it hardly possible that such trials can ever again be instituted. New laws and new modelled charters will doubtless be framed in the progress of human society; but while the present laws and charters exist, we conceive that the old disputes between the fellows and licentiates can never be revived. And here we may perhaps be permitted to make one or two reflections on the subject in question—reflections that have at least the merit of impartiality and independence, for, from particular circumstances, we have nothing to hope and nothing to fear from either of the parties. It is considered a grievance that Edinburgh, the great school of physic, should not have the same privileges that Oxford and Cambridge have, which universities can afford little or no medical instruction. But to us it appears reasonable that an academical education at our English universities should have some privileges over Edinburgh, because a far better preparatory initiation in literature, languages, and science is thereby secured; and it cannot be denied that this early and regular intellectual discipline fits the mind better for scientific pursuits, ceteris paribus, than

* "It is true that the College has no means of punishing the disobedient in the country, because the Statute is not supported by penalties; but it must be remembered that the acting in defiance of a Statute is in itself a misdemeanor. According to the opinion of Chief Justice *Mansfield*, a Doctor's Diploma does not itself entitle the possessor to practice in the country parts (provinces) of England. He must be an Extra-Licentiate of the Royal College of Physicians, or Medical Graduate of an English University. The provincial physician, unless thus protected, is placed under very humiliating circumstances; he is only a doctor by *courtesy*, and therefore cannot claim rank, or defend himself in courts of law. In a cause tried at Stafford before Judge *Mansfield*, a physician who had graduated in Scotland, having been grossly abused in his professional capacity, sued for redress, but could obtain none, because he had not complied with the act of *Henry* the 8*th*. *Middleton v. Hughes*. *See Harrison's Address* 82." 17.

where such discipline has not been put in force. It is vain to object that these seminaries of learning are not schools of medicine. Every one knows, that those who can afford a university education can also afford to cultivate medical science at the proper fountains of instruction. Neither can they come to collegiate honours till they undergo the necessary examinations before a competent tribunal. In short, it is our belief that the faculty of Physicians would be much bettered, if the restrictions on entering that profession were still narrower than they are at present, and the facilities less. Such is the influx, in our times, that a considerable proportion of medical society must soon, if it does not now, consist of needy adventurers, who cannot otherwise than deteriorate the profession itself, and lessen its dignity in the eyes of the world. Doubtless every restriction, of the kind now under consideration, must prove a check to merit labouring under the *res angusta domi*, and thus preclude genius from earning the *summi honores* in medicine; but laws must be enacted for the many and not for the few. By these observations we do not mean to advocate the unqualified optimism of the existing laws and regulations as they relate to physicians. We sincerely wish that the invidious distinctions between fellows and licentiates of the London College could be done away with, or lessened; but we see no prospect of such an event, because we cannot deem it either reasonable or prudent that the College should throw open its gates to all who choose to knock. We do think, however, that the College of Physicians ought, in deference to those universities where many of them have received their own medical education, to admit as licentiates, without examination, those who have regularly graduated there; for example, the diplomatists of Edinburgh and Glasgow. The tests of medical knowledge, that is, the examinations, are stricter at those universities than at the London College, and why therefore subject men twice to the same ordeal? Another remark, which we beg leave to make, is equally applicable to the northern and southern examinations—it refers to the *modus*. If it be desirable (and we think it is) that the candidate should be a classical scholar, why not put it to the proper proof by examining him in some of the classic authors, instead of compelling him to hold a conversation in Latin, by which he can neither prove his latinity nor display his professional knowledge?—We do maintain that this preposterous adherence to antiquated custom defeats in very many instances, the end and object of the examination itself; because we are certain that many an illiterate dunce has passed muster in consideration of the difficulty of expressing himself in a language of which he knew little, res-

pecting a science of which he knew less. Why, in the name of common sense, should we be obliged to render an account in *Latin* of that which we are *taught* in *English?* Is it not preposterous in a professor to sit three seasons inculcating his precepts in the vulgar tongue, and then to turn short round on his heel, and compel his pupils to render an account of their acquirements in a dead language! In whatever tongue the knowledge is taught by the master, in that tongue should an account of the proficiency be rendered by the pupil. We might appeal to the custom of our continental neighbours, but we rather appeal to common sense, and we challenge the big wigs, North and South of the Tweed, to urge a satisfactory reason *against* the modus which we propose, or *in favour* of that to which they so pertinaciously adhere. We believe the only plea they can assign is *custom*; but even this we impugn; for if they trace things to their origin, they will find that prelections were delivered, and competency was inquired into, in the same language.

2. *College of Surgeons.* We shall not dwell on the "charters, by-laws, ordinances, rules, and constitutions" of this College, since they all end in smoke, "as they do not give any power to restrain and punish ignorant pretenders, who, without the slightest qualification, assume this dangerous and difficult branch of practice, and most especially in the country." To us it does not appear that either college has much to brag of in this respect; for if "Surgeon Goss, &c. stick up their bills under the very noses of Machaon and Podalirius, in Lincoln's-Inn-Fields, Dr. Eady, with equal effrontery and tone of defiance, may inscribe his name, in very legible characters, over the gate of the College of Physicians in Warwick-Lane.

3. *Society of Apothecaries.* The laws and regulations of this corporation are now too well known to require any notice in this place. It is evident that this society has more real power than either of the other two. For the College of Surgeons has no power at all over any but those who choose to become its members; and whatever authority the College of Physicians may have over quacks, it is manifest that they do not exercise it. Among the cloud of words by which the charter of the apothecaries is described, we cannot pick out sufficient information to ascertain whether they have any power over the host of Charlatans by which town and country are overrun. Such is the glorious uncertainty of the law!

4. *Actions by Medical Practitioners.* A physician cannot

recover fees by an action—not even his travelling expenses—unless a promise is made, or a bond or bill is executed. A surgeon, of course, can recover medical attendance. "All physicians may practise surgery, though they (surgeons) may not encroach in physic." This is a specimen of the concordance between law and fact. We appeal to the reader whether the reverse of the above rule does not obtain in actual practice? The truth is, that all surgeons may practise physic, while scarcely any physician dare practise surgery, even in provincial towns. The M.D.'s of Edinburgh and Glasgow, who swarm through Scotland, practise as surgeons, and not as physicians in general; and as to England, there is scarcely such a thing as a physician practising surgery and physic at the same time.

5. *Actions against Medical Practitioners.* If the following piece of *law* can be construed into *sense* by any of our readers, we congratulate them on the brightness of their intellect, for to us the passage is an incomprehensible paradox.

"If a physician, surgeon, apothecary, or other medical practitioner, undertakes the cure of any wound or disease, and by neglect or ignorance the party is not cured, or suffers materially in his health, such medical attendant is liable to damages in an action of trespass on the case: but the person must be a *common surgeon*, or one who makes public profession of such business, as surgeon, apothecary, &c. for otherwise it was the plaintiff's own folly to trust to an unskilful person, unless such person *expressly* undertook the cure, and then the action may be maintained against him also." 80.

In the first part of the passage, physician, surgeon, and apothecary are liable to action—in the middle, it must be a "common surgeon"—and towards the end of the passage, it must be some person who *expressly* undertakes the cure, when he *also* may be prosecuted!! This is surely throwing dust into our eyes, instead of clearing our optics.

It appears that "any deviation from the established mode of practice shall be deemed sufficient to charge the surgeon &c. in case of any injury arising to the patient." A Mr. Slater recovered 500 pounds damages from Messrs. Baker and Stapleton, "for unskilfully disuniting the callous (callus) of the plaintiff's leg after it was set, which it appears was done for the purpose of trying a new instrument." A surgeon is held responsible for the negligence and ignorance of his apprentice or servant. Though the cases on record are all surgical, yet our authors think that physicians are equally amenable—but, happily for them, it is not quite so easy to demonstrate a wrong dose of physic in the stomach as an elbow in the os femoris after a fracture.

6. *Midwifery.* Under this head we were amused with the probable reasons why bishops formerly licensed midwives—namely, that they might be proved capable of repeating the form of baptism over a child's head, in case the body followed rather tardily. We confess that we are unable to sympathize in the gravity of the following sentiments.

"Surely, if the baptism of a child by a lay person is good, and the body cannot have Christian burial without it, there is nothing senseless or irreligious, and we will venture to add nothing morally or legally wrong, in the performance of this provisional ceremony. If there were no other object than to satisfy the anxiety of the mother at a moment when the calmness of her feelings is vitally important, it ought not to be omitted whenever the danger of the child and the absence of a priest appear to render it necessary." 83.

We are doubtful whether, even among the most staunch Catholics of these realms, there be such anxiety about baptismal aspersions of half-born infants, as to render it necessary for the doctor to stand divine at man's entrance into the world, in the same way as Blackstone has recommended him to act the lawyer while making his exit. Be this as it may, all we can glean from the present section of the work is, that "there is some probability that both the College of Physicians and the College of Surgeons will decline in future interference with this branch," the obstetrical. If this be so, and no tribunal be appointed to examine and license accoucheurs, an important branch of medical science will be left at the mercy of every ignorant pretender.

7. *Preservation of Public Health.* In this country, so famous for its laws, there is no separate legal code for public hygiene. Actual nuisances are actionable at the suit of the parties aggrieved; but, excepting quarantine, the executive government takes little or no part in securing the bodily health of its subjects. Our authors remark, that the habits of order and cleanliness in the inhabitants, and the "general salubrity of our climate" may have rendered such care less necessary, while our spirit of liberty and independence might have resisted the encroachments on domestic privacy, and the perpetual intrusion of local authorities to which our continental neighbours are subjected. It is needless to pry into old and obsolete laws against contagions, lepers, lazars, plague-sores, &c. but it may be proper to bear in mind that it is still an indictable offence for any person to pass through the streets with small-pox on him. Our authors are surprised that no legislative measures have been instituted to check the propagation of venereal diseases, which they consider, however, as on the decline. They suggest that a surgeon should be

attached to each police-office, and that the magistrates, in clearing the streets for the night, should order the detention of those whose liberty might prove dangerous to the unwary. They also hint, that some regulations should be formed respecting manufactories and schools, when contagious or epidemic diseases are prevalent, in order that the infected might be speedily removed from among those who are well. Such regulations would be extremely difficult of formation—or, at least, of execution, for obvious reasons.

Our authors very properly animadvert on the impolicy of such taxes as have a tendency to deprive the lower orders of those articles that are necessary to health—for instance, the tax on salt, an indispensable part of their diet. The importance of cleanliness is also properly insisted on, as well as the deleterious influence of stagnant waters. The slaughtering of cattle is another nuisance which imperiously demands the interference of the legislature; and still more the practice of burying the dead in churches, churchyards, and cemetries situated in the very centres of our most populous cities. The cemetries of this metropolis are so crowded that it becomes much more difficult to find room for the dead than for the living; and it is notorious that there are many churchyards in which the soil has been raised several feet above the level of the adjoining street, by the accumulated remains of mortality. There are others in which the ground is actually bored before a grave is opened. The most offensive, if not deleterious instance of this kind, occurs in the Irish metropolis.

"There is a burial-ground at the back of Kilmainham Hospital, (and consequently under the immediate view of the Commander and Adjutant-General of the Forces,) so disproportioned to the number interred in it, that the older coffins are frequently broken, and the undecomposed limbs constantly thrown on the surface, to make room for new tenants of this human soil; yet, after heavy showers, the earth being washed away, the lids of coffins may be plainly discerned, so slight is the covering which can be afforded them. Immediately below the rising ground on which this cemetry is situated, are the Island Bridge Barracks for the Artillery, the wells of which must of necessity be filled with the filtrations of the putrid mass above them. One at least of the principal Tanks at Gibraltar was similarly situated. The present Lieutenant-Governor, Sir George *Don*, among the numerous improvements in the regulation of cleanliness and ventilation which he has introduced on the rock, has converted the burial-ground into a public garden; to this, among his other measures, the garrison may owe some future exemptions from the diseases which have so often afflicted them." 94.

Although our authors agree with Dr. Bancroft, that pu-

trifying human bodies are not capable of generating the specific contagious matter of plague, typhus, or any true pestilential fever, yet they cannot but believe that, in the decomposition of the human body, various noxious principles are developed injurious to life. They republish the old account of the exhumations from the cemeteries of the St. Innocents at Paris, from which undertaking it does not appear that "epidemic evils" were experienced; but, as they properly observe, the greater part of these mortal remains had been converted into a harmless substance resembling spermaceti. Had this change not taken place, it is probable that worse consequences would have ensued from the exposure of this horrible accumulation. But, although no "epidemic evils" occurred, (as indeed there was no probability,) individual examples were not wanting to prove the dangerous tendency of the mephitic vapours emitted. Grave-diggers were thrown down suddenly, and deprived of sense and motion, *on* breaking open with their spades the abdominal viscera of the corpses —and in a wider circle of dilution these vapours induced nausea, loss of appetite, debility, and tremors.

"If farther evidence be required upon this subject, we have only to direct the reader's attention to the effects occasioned by opening the graves in St. Dennis, and to which no allusion is made by *Dr. Bancroft*: the National Convention in the year 1793, in the true spirit of revolutionary ferocity, passed a decree upon the motion of *Barrère*, that the monuments of the kings in this, as well as in all other places throughout France, should be destroyed. In carrying this decree into effect, the bodies of many of the latter Bourbons were found in a state of decomposition, and when the coffins were opened they are said to have emitted a thick black vapour, which, although vinegar and gunpowder were burnt to prevent ill consequences, affected the wretches employed in this inhuman work with fevers and diarrhœas: so again, when the ground of the church of St. Benoit was dug up a few years ago, a nauseous vapour was emitted, and several of the neighbours were affected by it." 97.

We cannot participate in the skeptical hardihood of our authors when they deny "that putrid emanations from the bodies of persons who have died of a pestilential disorder are capable of re-exciting the disease." We refer our authors to what Dr. Jackson (who will not be suspected of entertaining very credulous opinions on contagion) experienced in his own person when opening the bodies of men who had died of the epidemic fever at Cadiz. And as our present authors adhere to the doctrine of typhus being generated from a specific miasm, how does the above skepticism quadrate with the following *analogous* fact?

"We ought not, however, to omit to state, that instances are

on record, where the small-pox has suddenly appeared in a village, after opening the grave of a person who had a few months before fell a sacrifice to that disorder." 98.

It is computed that the decomposition of the soft parts is not terminated until the expiration of three years, in graves of four feet deep—or four years where their depth is six feet, varying, however, with the nature of the soil.

The cleansing of privies deserves some notice in this place. It has long been admitted, that a deleterious effluvium (sulphuretted hydrogen gas, sometimes in combination with ammonia*) issues from these receptacles of human ordure, which has been known to occasion ophthalmia, diarrhœa, dysentery, and sometimes sudden death, when the emanations were much concentrated.

"*M. Dupuytren* has given us many particulars respecting this affection; sometimes the patients are strongly asphyxied, and death takes place in a very short period; at others, the symptoms are less intense, and if the patients be carried into the open air, after a short interval, they make deep inspirations, and the breathing is gradually restored, although it continues laborious: the motion of the heart becomes perceptible, nevertheless the pulse is weak and small; the digestive and loco-motive apparatus have lost their contractile force; the functions of the brain are suspended; and if the patient finally recovers, he is a long time in re-establishing his strength. An emetic appears to be the remedy upon which the *nightmen* rely for relief." 101.

Explosions of hydrogen gas are not very uncommon in privies—especially in the Parisian ones, where cleanliness is not the order of the day, although a royal ordonnance on this subject contains thirty-four clauses or articles, enjoining most expensive and troublesome buildings or repairs of privies.

"And upon this occasion it is impossible to withhold the expression of those feelings of national pride and exultation which the contemplation of this subject must afford us; we have in our metropolis no less than 200,000 privies, of which 10,000 only are water closets. In Paris the number does not exceed 70,000, and yet with all the cumbrous enactments which that government has passed for their regulation, how far inferior they are in cleanliness, and how far greater are the effects of their effluvia, when compared with similar establishments in our city. The truth is, that the most elaborate system of medical police will never be so effective as the spirit of cleanliness, which is so characteristic of this great and free people;

---

* M. Dupuytren thinks he has satisfactorily proved that chlorine, by decomposing it, is its true antidote, by which hydrochloric acid (muriatic) is produced, and sulphur deposited.

and in this truth, so forcibly illustrated by the subject under discussion, we are to seek for the real explanation of that fact which has been so frequently commented upon by medical writers—THE APPARENT INDIFFERENCE OF OUR GOVERNMENT TO THE SUBJECT OF PUBLIC HEALTH." 102.

It is well remarked by our authors that the commissioners of sewers, though not engaged, like the œdiles of ancient Rome, in constructing magnificent aqueducts, are yet occupied in the far more stupendous and wonderful works which extend beneath the foundation of our mighty city, and which dispense to its inhabitants the essential requisites for comfort, cleanliness, and health.

8. *Quarantine Police.* It is hardly to be expected that the authors of the work before us should throw any new light on the long litigated questions respecting contagion, epidemics, endemics, infection, pestilence, &c. They justly remark, what indeed we have often remarked ourselves, that it is ridiculous to squabble about the etymologies of the words contagion and infection, as their import is not necessarily to be deduced from their derivation, but from their definition, or rather from established usage. But the fact is, that the distinction which the etymological physician would establish between the above terms is not accurate, for in every case of infection there is actual contact of morbific matter, whether visible or not; while some diseases, as the small-pox, are communicated both by palpable matter, and by imperceptible effluvia.

Our authors now come to the momentous question, "*whether epidemical disease be ever propagated by contagion?*" In respect to plague, this is their creed. "We may state, in general terms, that the concurrent testimony of different ages and countries sanctions the opinion that plague arises from specific contagion—is communicated *immediately* by contact, or *mediately* by the agency of infected goods;—and that its progress may be arrested by a vigilant system of police, cutting off every communication between the healthy and the infected." Our authors pass some severe censures on the writings of Dr. Maclean—writings which we have long looked upon as ravings, and consequently unworthy of notice. On the principal questions connected with epidemic diseases our authors entertain nearly the same sentiments which have been long maintained in this Journal, and with which our readers are sufficiently familiar. It is hardly necessary to remark that the authors of the work under review are implicit believers, not only in the contagion of plague, (in which we agree with them,) but in the omnipotence of the quarantine

system, if rigorously executed. We have very great doubts, however, respecting the apprehended danger of importing the plague into this country, if the quarantine laws were abolished. We do not believe England to be the soil on which the fomites of plague can grow; and for this reason, that, if our climate and manners were compatible with plague, it would have made its way hither long ago, in spite of vinegar and fumigations. The following is certainly no very forcible argument in favour of the *success* of quarantine laws in restraining the encroachments of plague upon the harbours and coasts of Italy, France, and Spain. Speaking of the quarantine officers of those countries, our authors observe—

"Occasionally indeed the courtesy of these gentlemen will deem a governor or wealthy noble to be incapable of communicating infection, though from the most suspected port, while a whole fleet of merchantmen, arriving with clean bills from the Atlantic, will be detained for some weeks, *ex abundanti cautela*, without admission to *pratique*." 130.

We are not advocates, however, for rash experiments, and therefore wish not for a sudden abrogation, though, we hope there will be a gradual melioration of the restrictions now imposed on commerce and communication. This appears to be the sentiment of our authors also. "At the same time we are ready to admit, with a periodical writer, that quarantine regulations might be amended, and rendered less inconvenient to commerce. They might, for instance, be modified as to the required period of segregation." 137.

9. *Medical Police.* With the exception of quarantine laws, laws of nuisance, and visitations of mad-houses, it can hardly be said that there is such a thing as medical police in this country. Our authors justly wonder why the sale of factitious, impure, spoiled, or deleterious drugs, should be guarded against *only* in the metropolis, (by the censors of the College,) while the provincial towns are left to their fate. To obviate the fatal effects arising from the exhibition of arsenic, our authors suggest that it should only be sold when mixed up with tallow, as the excuse for purchasing it is always the destruction of vermin. Speaking of the dreadful mistakes which every day occur from taking oxalic acid in lieu of Epsom salts, our authors observe—

"*Oxalic acid*, to which so many deaths have been lately attributed, may serve as an instance; in its external characters it bears such a resemblance to those of common *Epsom salts*, as readily to deceive the ordinary observer; and as both substances very frequently become articles of retail custom, they are usually kept ready for sale, in parcels of an ounce each, a practice which ren-

ders a careless substitution an error of common occurrence; the employment of a particularly coloured paper, that of *yellow* for instance, if used universally as a wrapper for poisonous articles, upon which also the word *poison* or *dangerous*, might be legibly printed, would to a certain degree guarantee the safety of the purchaser; but as danger might notwithstanding be apprehended in the night, a paper of a distinct texture might afford additional security; the peculiar roughness of the Dutch filtering paper, which is manufactured from woolen, would answer such a purpose. The labels of phials should in this particular correspond with the wrappers of dry substances; if the distinction were once generally adopted by the various dealers, it would soon become notorious to indifferent individuals, and many fatal accidents might be prevented, without the aid of legislative enactment."* 142.

10. *Bills of Mortality.* That much error and confusion must creep into these records from the absurd manner in which the investigation is conducted, will appear from the following extract:—

"The churchwardens of each parish within the bills of mortality, appoint two old women to the office of *Searchers*, who, on hearing the knell for the dead, repair to the sexton of the parish, to learn the name and residence of the deceased. They demand admittance into the house to examine the body, in order that they may see that there is nothing suspicious about it, and *judge* of what disease the person died, which they report to the parish clerk. The regular charge for the performance of this office is *fourpence* to each *searcher*; but if an extra gratuity be tendered, they seldom trouble the domestics with any examination." 144.

We agree with Dr. Burrows in thinking that this office, as at present filled, should be entirely abolished, and that the attestation of a properly qualified medical practitioner, upon actual knowledge of the disease or inquiry and examination of the body, should be substituted. Were the bills of mortality properly kept, we should derive from them important information on many dubious points, as the rise of many diseases and their affinity to each other—the increment, decrement, and cessation of epidemic and contagious diseases—the comparative salubrity of different countries, places, climates, and seasons—the influence of particular trades and manufactures on the human constitution, &c. Notwithstanding all their defects they are still very useful, and they establish, beyond all doubt, the gratifying fact of the superior salubrity of London, with all its increase of population, in

* "A bill was recently introduced in the house of commons on this subject, but did not pass into a law."

the present day, to what it was during the seventeenth century, when the deaths exceeded the births by more than one half of the whole number; while in the present age the sum total of births exceeds that of deaths. The same improvements have taken place in the provinces, and the value of human life is progressively increasing throughout Great Britain.

Here ends the first part of the work before us. We have endeavoured to cull out the most interesting particulars; but we fear our readers will be ready to say that we have hardly succeeded in keeping them awake during the perusal. It is not, however, the fault of the authors or of the reviewers, but of the nature of the subjects discussed.

11. *Medical Evidence.* Much of the matter introduced by our authors, under this head, applies to evidence in general, as the penalties for disobedience, the expenses allowed, &c. With these we need not meddle, although a list of works, on the law of evidence, is recommended to the perusal of the medical practitioner, that would occupy him some months, if not years, to study! For our own parts, we swear never to peruse one of them.

We shall glance, however, at some points of information laid down in the volumes before us. It appears that a medical man is not justifiable in withholding from the Court any information which has come to his knowledge in the way of his profession and under strict secrecy. The secrets of the prison-house must come out. When we consider the difficulty, or rather impossibility of bringing many medical men into the same way of thinking on abstruse points of physiology or pathology, we can hardly wonder at the constant clashing of medical evidence in courts of justice. Even in chymistry, which now assumes the character of an exact science, we have lately seen the most ludicrous specimens of conflicting testimony in the cases of Severn, King, &c. against several fire insurance offices.

"The causes were conducted by professional men of the first eminence, the Judge who presided well known for his love of science, and from having attained more knowledge in several branches of natural philosophy, than can usually be acquired by those whose time is engrossed by severer studies; the witnesses were among the best Chymists of the day, yet the question (simple as it might at first appear) whether oil or sugar at certain temperatures, and under certain circumstances, should be considered the more inflammable substance, occupied three days on the first and six days on the second trial. Notwithstanding which, a third trial took place involving the same question, and controversial pamphlets were published on both sides on the nature and supposed contradictions of the evidence." 160.

As to the mode in which a medical witness should deliver his evidence, there is much difference of opinion. While some recommend their pupils or readers to open at once the stores of their reasoning and information, others, fearing the effect which cross examinations may have on nervous or embarrassed witnesses, advise that no more shall be disclosed than categorically meets the question of the counsel :—

"And to this we incline, with this difference, that as we should deem too costive a retention of the truth as blamable as the flow of garrulity with which we have sometimes seen a court overwhelmed, we recommend the witness to steer a middle course, first answering patiently, distinctly, and tersely, the questions put by the Counsel on both sides, the Court and the jury; and if none of these elicit the whole truth, and any material point remains to be disclosed, the presiding judge will always admit and gratefully receive the additions or explanations which may be necessary to the ends of justice." 164.

It may be necessary to bear in mind that notes, if taken on the spot, or immediately after a transaction, may be used by the witness to refresh his memory. But these notes must be original, not copies.

A medical witness (for instance when he goes out professionally with duellists) need not answer to any thing that will subject himself to a criminal prosecution. Mr. Pettigrew, of Spring Gardens, refused to answer questions in the case of Mr. Patmore and Mr. Scott, when the latter was shot in a duel.

12. *Marriage.* We must pass over all the legal portion of this section, as not at all interesting, as far as we can see, to medical men more than to other men. Under the head of AGES as connected with marriage, divorce, &c. much tiresome and tedious matter crowds upon us; and to shew that this is not a captious and ill-grounded remark, we shall subjoin a specimen for the perusal of our readers.

"INFANCY—*Infantia*—(from *Infari*, not able to speak) commences at birth, and terminates at the *seventh* year. The signs by which the age of an infant may be computed, are derived from its moral as well as physical characters; and as circumstances connected with medico-judicial inquiries may render the problem of importance, we shall proceed to offer some data that may assist its solution. The feebleness and size of the infant; its epidermis yet reddish, and wrinkled; its face covered with down; its head soft, and the *fontanelles* greatly extended; the eye but little sensible to light, and lastly the appearance of the navel, are circumstances which will at once lead the medical practitioner to the conclusion of its not being many days old; while its smiles and tears, its upright posture in the nurse's arms, the thickness and whiteness of the skin, the plumpness

of its thighs and buttocks, the eagerness with which its eyes seek and follow brilliant objects, its agitation on the occurrence of noisy sounds, and its eager desire for the breast, are occurrences which will, according to the force and degree of each, announce the child's progress towards the *third*, *fourth*, or *fifth* month. The pleasure which it testifies at the sight of its nurse, its jealousies, and other passions, the habit of carrying its fingers and different objects to its mouth, the facility and pleasure with which it chews bread, and the copious discharge of saliva, announce the approach of dentition, and assure us that the infant must be in its seventh month. The progress of dentition will at this period afford some farther data; towards the end of the *seventh* month the middle INCISOR teeth of the inferior jaw perforate the texture of the gums; and soon afterward the corresponding INCISORS of the upper maxilla make their appearance; then the lateral INCISORS of the inferior, and subsequently those of the superior jaw; about the *twelfth* or *fourteenth* month, sometimes sooner, the first of the MOLARES of the under, then the corresponding teeth of the upper jaw appear; the four CUSPIDATI are usually protruded through the gum the last; thus the CUSPIDATI and the second MOLARES will sometimes appear at the same time, and this is usually between the *twentieth* and *twenty-fifth* month; so that at, or soon after *two years* of age, the twenty temporary or *milk* teeth are to be found in situ. It must however be remembered that the formation and appearance of the *milk* teeth are subject to considerable variety, and there are some examples on record, though very uncommon, of children born with two Incisors in the upper maxilla, but such teeth have been found to be imperfect in their structure, and without fangs, and they have consequently soon been detached; in other cases, children, although enjoying perfect health, have not cut a single tooth until the end of their second year. Nor are the other signs to which we have alluded, as affording indications of the age, to be considered as immutable; the infant may have been more or less retarded, or accelerated in its march of developement by its state of health and vigour, and it deserves remark, that scrofulous and *rickety* children very commonly present an aspect of intellectual precocity, by no means commensurate with their age; and hence the popular notion has arisen, that very intelligent children rarely continue to live. The fact of this premature expansion of the mind is too apparent to be doubted; but philosophers have endeavoured to explain it upon very different principles; the physiologist has sought the cause from some peculiarity in the organization of the body, while the moralist has attempted to account for it by supposing that in consequence of the inability of these subjects to partake of the sports and exercises suitable to their years, they necessarily enjoy more of the instructive society of their parents and preceptors." 184.

Pueritia, or boy-hood,—adolescence, or puberty,—juventus, or youth—ætas virilis, or manhood—senectus, or old age, and decrepitudo, or

"Last scene of all that ends this strange eventful history,"

are each handled with equal or more minuteness. We shall say but a few words on these subjects as they rise in succession.

Pueritia commences with the shedding of the temporary or milk teeth, about the seventh year, and ends at puberty, the 14th or 15th year in males, and 12th or 13th in females. At this important epoch the powers of the system are directed into other channels besides the mere growth of the body. In the male, the beard sprouts—the voice grows rough, the aperture of the glottis augmenting in the stronger sex in the proportion of 5 to 10—in the weaker only in the proportion of 5 to 7—the generative functions are established—the whole volume of the body augments and assumes a character so decidedly masculine as at once to proclaim the sex of the individual. The mental phenomena correspond with the corporeal. The mind acquires tone—the manners and habits become more manly. At this critical period diseases often commence or disappear.—Hereditary mania, phthisis, scrofula will generally lie dormant till this epoch, and then declare themselves. It is well known that, in the female, the mammæ enlarge, and the catamenial discharge appears at this period. It is quite useless to digress to the histories of those rare cases of precosity in both sexes which, being exceptions to the general laws of nature, are mere matters of curiosity, and useful only to swell the pages of an ephemeral print. The phenomena of puberty depend, of course, on the developement of the generative organs—but not of all parts of these alike. The testicles and ovaria seem to be the important parts. Females have grown up with the characters of perfection, where the uterus was wanting; but not so when the ovaria were defective.

Youth succeeds to adolescence, and is tacitly allowed by the laws as the period best adapted for the vigorous discharge of public duties. "It is the age at which the greatest enterprises have been achieved, and the most brilliant efforts of human genius fulfilled; the developement of the body having been accomplished, its powers are expanded in the production and support of intellectual energies." In this period the action of the arterial system may be said to predominate over every other, and hence the diseases to which man is exposed in this stage of his existence are of an acute and inflammatory character.

Manhood. Youth passes into manhood by such insensible gradations, that it has been considered as only a continuation of the same stage of perennity. Hippocrates and Galen compare the youth to summer, and manhood to autumn, thus

insinuating that, if the one be less fervent, it is also more mature than the other. In the latter, what is lost in glow of imagination is gained in maturity of judgment. The arterial system no longer predominates over every other—its energies are reduced, and a juster equipoise is established. The diseases of man now assume a different aspect, and maladies of a chronic nature prevail. Thus, while in the apparent plenitude of our existence, we are fast journeying to our final goal. Man, in fact, never stands still. In vain shall we attempt to cast anchor in the stream of life. It will alike carry away those who struggle against it, and those who yield quietly to the force of the current. Any panacea to renovate the body is as chimerical as the "fountain of youth" is fabulous.

Nascentes morimur, finisque ab origine pendet!

Senectus—Old Age. The bony framework has now become more solid—the vascular system abridged in the extent and subtlety of its ramifications—the muscles less irritable—their adepose matter less plentiful—the whole volume diminished—in short, it is in this age that we shift into the "lean and slippered pantaloon." The senses lose their acuteness, the heart its force. Venous plethora prevails—the blood vessels are liable to ossific depositions, whence apoplexy and various affections of the heart and other organs arise. The faculty of reproducing the species ceases long before the natural termination of life, though this failure is far more uncertain than the commencement of the function.

"Decrepitudo—*Advanced Age.* At length the limbs fail under the burthen which for so many years they had sustained with ease; the exterior muscles gradually return to that state of debility in which they were during infancy, and being unable to sustain a continued state of contraction, relieve themselves by alternate intervals of relaxation, from which arise the tremors* so characteristic of old persons; upon the same principle is to be explained the *Vacillatio Senilis*, (see-saw) for by these motions the muscles which preserve the perpendicularity of the body, are alternately quiescent, and exerted; and are thus less liable to fatigue or exhaustion. The teeth having successively dropped out of their sockets, the alveolar processes are absorbed; and the projection of the lower beyond the upper jaw, imparts a very peculiar physiognomy to the countenance.

"Last scene of all,
That ends this strange eventful history,
Is second childishness, and mere oblivion,
Sans teeth, sans eyes, sans taste, sans every thing." 196.

* "This is erroneously supposed to be paralytic; they evidently originate, says Dr. Darwin, from the too quick exhaustion of the lessened quantity of the spirit of animation, for they only exist when the affected muscles are

And now we hear (or fancy we hear) some of our readers ask what has all this sentimental physiology to do with forensic medicine?—After shifting our wig, rubbing our eyes, taking snuff, and looking very grave, we are constrained to answer that—we do not know!—All the excuse we can make is, that we find these things recorded in a work on medical jurisprudence by doctors and lawyers of rank and reputation. Certes, we might just as well have been amusing ourselves and our readers with dissertations on the circulation of the blood, muscular motion, or nervous influence; but such as we find in books, ex professo, such must we give unto thee gentle reader.

13. *Impotence and Sterility* follow the subject of *marriage*, in the work before us—which must be a great consolation to the disciples of Malthus—provided they are as *consecutive* in the works of Nature.

The causes of impotence may be absolute or relative—functional or organic—physical or moral—temporary or permanent.

Organic Causes in Males. There was a period in the history of physiology observe our authors, "when the testicles were not considered essential to virility." The Stagirite, who set himself up as a judge in physiology as well as poetry, asserted that the testicles merely served "as weights to hinder the spermatic vessels from being folded up." We think it would have been almost as good a comparison, or rather conjecture, if he had likened them to the pendulum or the weights of a clock, which regulate the movements of the gnomon or index above. Every one knows that these bodies descend in general from the abdomen to the scrotum. In some they do not come down. What then? Foderé states that such persons have even been remarkable for their vigour, "for these organs, says he, appear to derive greater power of secretion from the warm bath in which they lie, than when they have descended into their natural situation." John Hunter entertains a different opinion. He believes that when both testicles remain through life in the belly, they are exceedingly imperfect, and incapable of performing their natural functions. In this opinion Zacchias and Riolan concur; while the late Mr. Wilson stated, that he was acquainted with one case that confirmed, and another that refuted, this last opinion;—and

excited into action, as in lifting a glass to the mouth, or in writing, or in keeping the body upright, and cease again, when no voluntary exertion is attempted."

this is probably the true state of the question. Each case must rest on its individual merits.

It does not appear that two testicles are essentially necessary for procreation, no more than two eyes for sight, though the Parliament of Paris declared the matrimonial contract null where one testicle was absent! That Parliament has since had other fish to fry. The testicles are liable, of course, to many diseases that destroy their texture or function, as scirrhus, cancer, &c. M. Larrey has described an atrophy of the testicles which affected the French soldiers returned from Egypt, by which these organs became soft to the touch, and gradually diminished in size, without any pain. It is curious too, that persons afflicted with elephantiasis lose the venereal appetite and suffer a wasting of the genitals. We cannot dwell on the various organic and mechanical defects to which the parts of generation in both sexes are liable—they will be readily appreciable by men possessed of proper anatomical and physiological knowledge.

Sterility in women is much more frequent than impotence in men. The causes are numerous, as absence of the uterus, imperforate uterus, polypus in utero, ovaria wanting or diseased, &c. Most of these causes are not only irremediable, but incapable of being detected during life. There are many functional causes of sterility in women, as constitutional debility, leucorrhœa, irregularity of the menses.

"Women who are very corpulent are often barren, for their corpulence either exists as a mark of weakness of the system, or it depends upon a want of activity in the ovaria; thus, spayed or castrated animals generally become fat." 215.

The cause of general barrenness in prostitutes has never been satisfactorily accounted for. "Exhaustion of the uterine system occasioned by frequent and promiscuous intercourse with the other sex," is what we cannot easily comprehend. Most of the lower classes when they first go on the town are healthy, vigorous, and cannot become exhausted all at once —yet it rarely happens that they become pregnant, even in the earliest period of their prostitution. We imagine it is more from mental than corporeal causes that this exemption results.

14. *Legitimacy of Children.* On this point the laws of happy old England are very indulgent to the child—for provided it be *born* in wedlock, it is quite immaterial where it was *begotten!* If indeed it can be proved that the husband was absent *from the kingdom*, nine months or more, then the issue, during that period, shall be bastards. "But it was held that if the husband was in England during any part of

the time between the conception and the birth (without reference to the physiological impossibility of the fact) the child would be deemed legitimate."

"But none can be legitimate who are born out of wedlock; in which our law differs materially from the Roman or Canon law, and it is somewhat singular that the celebrated "*quod nolunt Leges Angliæ mutare*" of the Barons, at the Parliament of Merton, in the 20th of *Henry* the 3d, should have been induced by an attempt on the part of the bishops, (*omnes episcopi magnates*) to introduce this novelty,—that children born before marriage, should be legitimised by the subsequent performance of the ceremony between their reputed parents." 218.

This conduct of the Bishops is to be entirely imputed, of course to their being imbued with more Christian charity towards the frailties of human nature, than were the ferocious and uncultivated Barons. Our readers are already acquainted with the importance which is attached by our authors to a knowledge of "Tenant to the Courtesy," by medical practitioners. This then is the law.

Tenant by the courtesie of England is where a man taketh a wife seized in fee simple or in fee taile general, or seized as heir in taile especial, and hath issue by the same wife, male or female, born alive (*oyes ou vife*,) albeit the issue after dieth or liveth, yet if the wife dies the husband shall hold the land during his life by the law of England, and he is called tenant by the courtesie of England, because is this used in no other realme but in England onely. And some have said that he shall not be tenant to the courtesie unless the childe which he hath by his wife be heard crie; for by the crie it proved that the child was borne alive. Therefore Quære." 225.

As considerable property may depend on the question whether a child be born dead or alive, it seems desirable that notes should be taken by the accoucheur.

15. *Monsters and Hermaphrodites.* These cannot inherit according to law. There is little occasion, however, for law in these cases, since very few monsters who have materially deviated from the human form, have long survived their birth.

16. *Physiological Illustrations;* and first, of conception, or utero-gestation. Our authors have endeavoured to steer as clear as possible of the mazes of ingenious theories and conjectures that have been from time to time, emitted from the brains of anatomists, physiologists, and physicians, respecting this mysterious process, confining themselves to, and resting on, the sensible phenomena attending it.—

We can pretty confidently say, that the series of changes

constituting conception and gestation, commence in the ovaries, and not in the uterus, as was formerly supposed. One or more vesicles become loosened from their connexion, by the nisus of coition, and grasped by the fimbriæ of the fallopian tube, through which they descend into the uterus, leaving a spot in the ovarium, which, when examined after death, exhibits a slightly lacerated appearance, and is called a *corpus luteum*. While these actions are proceeding, the uterus undergoes certain changes. It becomes more vascular—its internal lining softer, and a white mucus is secreted which gets organized, and forms a lining to the whole of the cavity of the uterus, except the openings leading to the fallopian tube. It is termed the decidua, or the decidua reflexa. The time required for the descent of the ovum into the uterus is doubtful. Haller has never been able to distinguish it before the seventeenth day. As the mouth of the pregnant uterus is sealed up with gelatinous matter from the time of conception, the catamenia cannot, our authors believe, afterward appear. Burns and Denman are of this opinion, the former conceiving that the discharges which have been mistaken for catamenia during utero-gestation, were only secretions (different in nature from the menses) furnished by the vessels of the vagina. We need not dwell on the early symptoms of pregnancy, constitutional or general, as they are not taken into account in a court of law, since the plea of pregnancy will not avail until it is so far advanced as to render our investigations easy and satisfactory. We wonder, therefore, that our authors have filled up so much space with the common elementary matter to be found in every book on midwifery and physiology.

It is about the fourth month after conception that we are enabled to form a pretty good guess, whether the female be pregnant or not. Our authors say that at this period we are able "to place the fact beyond the reach of conjecture." But surely this is too confident language. We have seen cases where the most experienced accoucheurs were unable, even at a later period than four months, to ascertain the fact of pregnancy. Before this period, observe our authors, we cannot determine the question by any examination *per vaginam*, for the fundus uteri is the portion first distended after conception, while the cervix, the only part we can feel, does not begin to shorten to any appreciable extent, before the period just stated.

"The following method of examining the uterus, in order to ascertain whether it be gravid, is proposed by *Tortosa*, and is well calculated to accomplish the object. The woman, being fasting, and her bowels and bladder having been previously evacuated, should

be directed to lie down, with the loins low, and with the head and buttocks elevated; the knees are then to be raised and bent, so as to bring the thighs to the belly, and the heels to the buttocks, by which position the abdominal integuments will be relaxed; the midwife is then to place the hand upon the epigastric region in such a manner that the little finger may rest on the pubes, and the thumb on the navel, and ordering the woman to breathe hard, he must press the belly gently during the expiration: if the uterus be gravid, and is more than three months advanced, he will at this moment feel above the pubes an equal, hard, globular body; and if the same examination be made after the fifth month of gestation, he will probably feel at the same time the motions of the fœtus; but, in cases where no tumour can be distinctly felt, the operator must be very careful not to be deceived by motion, for the action of flatus may mislead him, and even where an obvious enlargement exists, the pulsations of the aorta may lead to it a deceptive motion; this is particularly striking where the ovarium is extensively diseased, or the uterus is distended with tumours, an occurrence which has not unfrequently induced the patient to consider herself pregnant; in such a case the ovarium may be felt through the parietes of the abdomen, sometimes pretty high, like the uterus, or like a prominent part of a child, but the round and circumscribed nature of the tumour can never deceive an experienced midwife. *Avenzoar*, however, has left a confession that he was deceived about his own wife, whom he had treated as dropsical, though she had passed her fourth month of pregnancy. We ought also to state that dropsy and utero-gestation may be co-existent, and there are unfortunate cases on record where, on such occasions, women have been sacrificed by the mistaken applications of the trocar.

"In order to ascertain the exact state of the *os uteri*, an examination must be made *per vaginam*, which may be conveniently effected while the woman remains in the same position, by introducing the fore and middle fingers of the right hand. For the first three months the *os tincæ* feels smooth and even, and its orifice is nearly as small as in the virgin state; when any difference can be perceived, it will consist in the increased length of the projecting tubercle of the uterus, and the shortening of the vagina from the descent of the fundus-uteri through the pelvis: this change in the position of the uterus, by which the projecting tubercle appears to be lengthened, and the vagina proportionally shortened, chiefly happens from the third to the fifth month." 238.

Now we appeal to our obstetric brethren whether the marks described in the foregoing examination enabled us "to place the fact beyond conjecture?" Nay, we hesitate not to affirm that the first, or external part of the examination—namely, the guaging by thumb and little finger from naval to pubes, as proposed by Tortosa, is a piece of legerdemain, on which no dependence can be confidently placed. And as for the alteration about the os tincæ, we believe few accoucheurs would risk a diagnosis on such equivocal criteria.

These criteria become less equivocal, no doubt, as utero-gestation advances. About the 16th or 18th week the phenomenon of quickening takes place—the laws of England still sanctioning the false hypothesis that it is at this moment the fœtus receives the essence of vitality. The plea of pregnancy in bar of punishment, and the degree of criminality in cases of *abortus procuratus* hinge on this said hypothesis. Yet it is difficult to say, why a fœtus of $3\frac{1}{2}$ months should not be entitled to the same protection of the law as one of $4\frac{1}{2}$ or 5 months. "Et voila," as Mahon says, "le tort immense que ont quelquefois les systèmes et les opinions scholastiques."

The following explanation of the peculiar sensation termed "quickening" is very far from satisfactory to our apprehension.

"We shall indeed cease to be surprised at this effect when we consider that from the uterus thus changing its situation, a very considerable pressure is suddenly removed from the iliac vessels, in consequence of which the blood rushes to the lower extremities, and a temporary exhaustion of the vessels of the brain, and a general loss of balance in the circulating system, are the results." 240.

Now, wherever there is pressure upon arteries and veins, both (and where can we make pressure without affecting both sets of vessels?) the veins, from their structure, experience most interruption of function, and consequently the parts behind the pressure are more than naturally turgid. Look at the lower extremities of a female when the advanced gravid uterus presses not only on the hypogastric but on the great iliac vessels. They are swelled, and often œdematous. The balance of the circulation then cannot be said to tend more to the head in the early than in the ulterior stages of utero-gestation, and consequently this explanation is not satisfactory on physiological grounds.

Why labour should come on at the expiration of nine calendar months, or about 40 weeks from the time of conception, we can give no better reason than that which was assigned in the time of Avicenna; namely, that—"it came on by the *command of God*"—a command that extends to every animal that brings forth, however various the periods of gestation.

Our authors now proceed to the consideration or solution of several physiological and forensic problems connected with the subject of pregnancy. And first, "*whether a woman can be delivered during a state of insensibility, and remain unconscious of the event.*" This must be answered in the affirmative. In certain comatose states of the brain—during the operation of strong narcotic substances—in the delirium of

fever, such an event is not only possible but probable. Cases of the kind are on record ever since the days of Hippocrates.

2dly. *How far the term of utero-gestation can be shortened, compatible with the life of the offspring.* Capuron relates the case of Fortunio Liceti, who is said to have been born at the end of four months and a half, and lived to his 24th year. Our authors take no notice of the well autheticated case of a child born between the fourth and fifth month, and reared at Paisley, in the year 1315, as recorded by Dr. Rodman in the 11th volume of the Edinburgh Medical and Surgical Journal. Such an authentic and excellent illustration happening in our own time and country should not have been overlooked. Physiologists of the present day consider that a fœtus born before the completion of the seventh month "has a very slender chance of surviving," although instances have occurred where the life has been preserved after a birth still more premature. Our authors ridicule, as a conceit, the idea entertained by Hippocrates, and even by many modern writers, that an infant could live at seven months, but rarely or never at eight. Whatever may be the degree of conceit in the business, we believe it is a fact that more children are born *and live* at seven than at eight months of utero-gestation.

Q. 3. *To what probable extent can the natural term of utero-gestation be prolonged?* The period of 40 weeks does not seem to be so arbitrarily established but that Nature may occasionally transgress her usual law, and over-run, or run short of her reckoning.

"*Dr. Hamilton* remarks upon this occasion, that if the character of the woman be unexceptionable, a favourable report should be given for the mother, though the child should not be produced till nearly ten calendar months after the absence or sudden death of her husband." 246.

Upon this question, involving in its moral and legal relations the honour and happiness of families, the legitimacy of offspring, and the succession of property, both doctors of law and doctors of physic are divided. Mahon associates his name with Astruc, Mauriceau, Rhœderer, and Baudelocque, who reject the belief in retarded delivery as a thing impossible; while Fodere ranges with those who support the contrary opinion, among whom are Heister, Bartholin, Haller, Lieutaud, Vicq. d'Azyr, and Capuron, to whom may be added Hippocrates, Aristotle, and Pliny. The Parliament of Paris, in the case of a widow, decided in favour of the legitimacy of an infant born in the 14th month after the

death of her husband. The civil code of France has now placed a limit to our credulity respecting retarded births, and decrees 300 days or ten months to be the most distant period at which the legitimacy of a birth may be allowed. We agree with our authors that—"were we called upon to deliver an opinion upon this momentous question, we should certainly consider such a law as rather inclining on the side of mercy, than on that of stern justice."

Q. 4. *What is the value of those signs by which we seek to establish the fact of a recent delivery?*

"1. The face is pale, the eye sunken, and surrounded by a purplish or dark brown coloured ring; the pulse is full and undulating; the skin soft, supple, rather warmer than ordinary, and covered with a moisture which has a peculiar and somewhat acid odour.

"2. The breasts are swelled, and harder than usual, and painful; and, in some cases, lumpy to the touch, and emit, by pressure or suction, a lactiform fluid; the nipples are thicker, and the areola, by which they are surrounded, is widened in extent, and darkened in colour.

"3. The abdomen is flaccid, and its skin lies in folds, and is traversed in various directions with shining, reddish, and white lines, and light-coloured broken streaks, which especially extend from the groins and the pubes towards the navel.

"4. There is an extraordinary swelling and tumefaction of the external parts of generation: sometimes the anterior margin of the perineum is lacerated, or it is very lax, from the distention which it has undergone.

"5. The vagina is preternaturally distended; the orifice of the uterus is soft and open, and capable of admitting the point of the finger without difficulty, as if a late discharge had been made from it: the womb itself, not having properly collapsed, and resumed its natural shape and dimensions, may be felt through the parietes of the abdomen, voluminous, firm, and globular, contracting and expanding under the hand, on pressure.

"6. A discharge of serous fluid mingled with blood from the vagina, called the *Lochia*, continues from five to thirty-five days after delivery: it differs from the common menstrual flux in being paler, but more particularly in its peculiar and characteristic sour odour; at first this discharge is decidedly sanious, but in a few days it becomes of a much paler and of a brownish, or a dirty green hue, so as to acquire the common term of *green waters*." 252.

In the course of ten or twelve days, however, these signs become too obscure to afford unexceptionable evidence. It is proper also to consider the consecutive signs of parturition collectively, not individually, for as Chaussier has properly remarked—"no disease or affection besides parturition, can possibly produce the whole series of signs above described."

Q. 5. We are next to inquire if there be any, and what diseases, whose effects may be mistaken for traces of recent delivery?

Dropsical discharges from the uterus, uterine hæmorrhage, the expulsion of a mole, hydatid, or polypus—in short, the removal of any of those diseases which constitute what has been termed *false conception*, occasion effects which simulate the signs of parturition. Nor do we think our authors have pointed out any sure distinctions between the one case and the other, in the following passage:—

"The irruption of fluids from the womb, menorrhagia, and leucorrhæa, may mimic the *lochial* discharge, but they will not remain, nor will they present that characteristic odour by which the latter is so pre-eminently distinguished; so again, the relaxation of the soft parts may be the consequence of disease as well as of delivery, while the paleness of the visage is the usual concomitant of profuse evacuation; but then the distention of the vagina, and the state of the neck of the uterus, and the absence of all contusions, lacerations, and discolourations will obviate the possibility of deducing any erroneous conclusions from these phenomena; the wrinkles and marks upon the abdomen may certainly follow any considerable change in the reduction of its bulk, whether it be the result of parturition, ascitic discharges, or the absorption of fat; but we may easily disarm such signs of their treachery by a previous inquiry into the state of the woman's health, and into that of her robustness and general strength." 255.

Q. 6. *Can we determine, at a remote period, whether a woman has ever borne a child?*

In offering the following indications of a woman having borne a child, our authors properly remark that, *singly*, they can furnish but very slender evidence, and collectively they afford but strong presumption of the fact.

"1. The orifice of the womb has not its conic figure; its lips are unequal; and it is more open than in those who have never borne children.

"2. There is a roughness of the abdomen, the parietes of which are also more expanded and pensile.

"3. There are small white and shining lines running on the surface of the abdomen.

"4. The breasts are more flaccid, and pendulous, and the lines on their surface are white and splendid.

"5. The nipples are prominent, and the colour of their disks brown." 256.

Excepting the white lines on the abdomen, all the other marks being, as it were, *comparative*, are extremely equivocal. And even the abdominal lines might be produced by any cause that gave a temporary enlargement to the abdomen.

Q. 7. *To the question what are the earliest and latest periods of life at which women are capable of childbearing?*—we apprehend little positive can be said, unless we verge to great extremes. The commencement and cessation of menstruation are the natural boundaries; but these commence and decline at different periods in different individuals, and we imagine that it is by no means certain that a young female cannot conceive because she has not begun to menstruate—though the probabilities are against her, no doubt. Of the *extraordinary* and "well authenticated" cases on record we shall take no notice, as they are mere exceptions to a general rule.

Q. 8. *What is the possible number of children that can be produced at one birth?*

Twin cases occur on an average once in 90 labours—triplets about once in three thousand times—and quartettos are so rare that no calculation has been made on the subject. It is considered as a very wonderful fact, and a strong proof of Divine Providence, that the relative number of males and females born is nearly equal—21 males to 20 females. To us this fact does not appear a bit more wonderful than any of the other laws by which the universe, or even the human microcosm is governed. Is it more wonderful that the number of the sexes should be nearly equal, than that a black pudding should be converted into white chyme in the stomach of either sex?

Q. 9. *Is superfœtation possible—and at what period of gestation can it take place?* This question is more important in a legal than in a merely physiological point of view.

"A woman loses her husband suddenly, *tenant in tail male*, a month after marriage, and at a little more than eight months after his decease she is delivered of a perfect male child, and, at nine months, she declares that she is delivered of another infant, which is a male. The heir at law, who has entered, contests the fact of this latter birth; the question, therefore, to be determined is, whether such an event is compatible with the known laws of utero-gestation." 260.

We much doubt whether a court of law would seriously listen to the "well characterized example in the instance of Iphicles and Hercules, who were begat by Alcmena, the former by Jupiter, and the latter by Amphytrion."*

Hippocrates, Aristotle, Pliny, believed in superfœtation—and examples are recorded by the moderns corroborative of

* Vol. I. p. 261.

the possibility of such an event. That of Buffon's is the most in point.

"*Buffon* presents us with a still more striking example; a woman of Charleston, in South Carolina, was delivered in 1714 of twins, which came into the world one directly after the other, but to the great surprise of the midwife, one was black and the other white; the woman herself, considering this proof of her infidelity too obvious to be denied, admitted the truth without hesitation,—that shortly after having enjoyed the embraces of her husband, a black servant entered her room, and by threats accomplished his purpose." 261.

Musa Brassavolus asserts that he saw an *epidemic of this* kind! "Nos vidimis super-fœtationem quandoque fuisse epidemicam affectionem." This is really satis superque! Haller was a strenuous believer in superfœtation. "Os uteri nunquam clausum est; ideoque potest super-fœtari non solum a die sexto ad trigessimum, aut primis duobus mensibus, sed omni omnino tempore." The case of *superfœtation* recorded by Dr. Maton in the 4th volume of the College Transactions, has been criticised by Dr. Granville, in the Philosophical Transactions, and defended in the present work by Dr. Paris. As the case was only orally related by Dr. Maton, we do not deem it necessary to enter into the dispute. The most probable cause of superfœtation is a septum in the uterus, which, in fact, renders it virtually a double organ.

Q. 10. *What are the causes of abortion?* Under this head reference is merely made to works on midwifery for information.

Q. 11. *Under what circumstances is it morally, legally, and medicinally proper to induce premature labour?*

The artificial induction of abortion is not described, as the work is designed for perusal beyond the pale of the profession. This is of little consequence, as the *modus* is well known to the surgeon. In cases of distorted pelvis, through which a full grown fœtus cannot pass, it becomes our duty to perform the operation for premature delivery. The following observation of Dr. Hull on this subject may not be unworthy of quotation.

"'The propriety of inducing premature labour,' says he, 'in any deformed woman, can rarely, if ever, be determined upon before the crotchet has been found indispensably necessary, and actually employed in a previous labour; indeed, unless the contraction of the tube or canal of the pelvis be very considerable and pretty accurately ascertained, it will scarcely be justifiable in any case to have recourse to this practice in all the subsequent pregnancies, until the

woman has been delivered a second, or third time, by the crotchet; for it has happened in a very great number of instances, that a woman who has been delivered of her first child by the perforator and crotchet, has been afterward delivered of one or more living children, at the full time; this observation is made not to discountenance the inducing of premature labour, but to prevent the abuse of it.'" 273.

Q. 12. *What circumstances will justify the Cæsarean operation, or the section of the symphysis pubis?*

Much learning, research, and irrelevancy, are unnecessarily employed in answering this and most other questions in the work before us. No pains, indeed, are spared to force in matter from historians, poets, and even dramatists. Here follows a specimen.

"It must be admitted, that a child taken from the womb of its mother by the cæsarean section, cannot, in philological strictness, be said to have been *born*. The ingenious purpose to which *Shakspeare* has applied this quibble has no doubt suggested itself to the reader.

"*App.* Macbeth! Macbeth! Macbeth!

* * * * * *

Be bloody, bold, and resolute; laugh to scorn
The power of man; for *none of woman born*
Shall harm Macbeth. *Act* iv. *sc.* 1."

"*Macd.* * * Despair thy charm;
And let the angel, whom thou still has served,
Tell thee, *Macduff was from his mother's womb*
Untimely ripp'd. *Act* v. *sc.* viii." 281.

The whole marrow of this section might be contained in a nutshell. The operation ought not to be performed "where by embryulcia the child can be extricated." And again, "In the event of a woman, near the full time of pregnancy, dying undelivered, the Cæsarean operation ought always to be performed with as little loss of time as possible." This is the sum and substance of many pages.

EXTRA-UTERINE PREGNANCY.

This subject is introduced without even a hint that it has any connexion with medical jurisprudence. It is like the spleen, a mere locum tenens to fill up two or three pages. Calculus or gall-stones would have done just as well.

HERMAPHRODITES.

Although there can be no doubt that some of the lower order of animals are, in the strictest sense of the term, hermaphrodites, "it is now universally admitted that, in the human species, no such phenomenon ever existed." "Nor is

there upon record a single case which can be considered authentic." It is, of course, in cases of this kind, where preternatural structure gives the appearance of a double sex. that medical men are called upon to decide. Sir Everard Home considers that all the monstrous productions, hitherto described as hermaphrodites, may be reduced to one of the four following classes:

"1. Malformations of the male. 2. Malformations of the female. 3. Males with such a deficiency in their organs, that they have not the character and general properties of the male, and may be called NEUTERS. 4. Where there exists a real mixture of the organs of both sexes, although not sufficiently complete to constitute double organs." 285.

IDIOTS AND LUNATICS.

The first eighteen pages of this section are occupied with *law*, scarcely any part of which can our poor intellects comprehend. For our own parts, we are determined, whenever it shall please God to afflict us with *insanity*, to put the business into a lawyer's hands—but, while we are *compos mentis*, we shall have nothing to do with law. The physician dabbling in law is something like the lawyer dabbling in physic—they will both botch the business. "Ne sutor ultra crepidam," say we.

In commencing the medical and physiological illustrations of insanity indeed, it is acknowledged that "the duties of the jurist and physiologist in the investigation of mental derangement are distinct in their nature, if not different in their object." Hence it is that the abstract terms used to denote the form or degree of the malady have received from the two professions a somewhat different latitude of acceptation.

"For legal purposes the adoption of the term "*Non Compos Mentis*," from the amplitude of its construction, gets rid of those nicer distinctions and difficulties which the pathologist is bound to encounter and investigate; the lawyer only inquires whether such a state of mind exists, as actually disqualifies the person in question from conducting himself with propriety, or managing his affairs; but the medical evidence is bound not only to give his opinion upon the case, but to state the reasons which may have influenced his decision; and hence the necessity of his becoming practically acquainted with those physiological distinctions to which we have alluded." 307.

There are two conditions of the human mind, either of which very justly deprives the subject of the control of his person and property, and takes from him all criminal responsibility, viz. Idiotcy, or total deficiency of intellectual power: and madness, or a morbid perversion of it.

"Between these two states we shall not have much difficulty in discriminating; the idiot cannot reason at all; the madman reasons falsely; the idiot acts from animal appetency, he has no will; the madman wills, but his reason being disturbed, his actions are not compatible with the usual relations of society." 308.

The medico-legal questions which our authors propose to agitate in this work are as follow:—

"Q. 1. Whether the person be actually insane? and what are the proofs of his derangement?

Q. 2. Whether the symptoms are of such a nature as to suffer the individual, with propriety, to retain his liberty, and enjoy his property.

Q. 3. Whether there has been any lucid interval, and of what duration?

Q. 4. Whether there is a probable chance of recovery; and in case of convalescence, whether the cure is likely to be permanent?" 317.

In respect to the *first* query, it has been justly remarked, that to constitute insanity it is not necessary to exhibit the ferocity of a wild beast, nor to perform the antics of a buffoon. The most ordinary observer can tell when a man is furiously mad; but in many cases—"such thin partitions do the bounds divide," that all the skill and discernment of a medical practitioner is required to establish the existence of insanity. It is difficult to lay down any rule for the investigation of a case of real or supposed insanity. The practitioner must make himself acquainted with the pathology and history of the disease in the proper treatises, *ex professo;* for little or nothing of course, is to be learnt on the subject from a book like that before us.

"'It is nearly impossible,' says *Dr. Haslam*, 'to give any specific directions for conducting such an examination as shall inevitably disclose the delusions existing in the mind of a crafty lunatic; but in my own opinion it is always to be accomplished, provided sufficient time be allowed, and the examiner be not interrupted. It is not to be effected by directly selecting the subjects of his delusion, for he will immediately perceive the drift of such inquiries, and endeavour to evade, or pretend to disown them; the purpose is more effectually answered by leading him to the origin of his distemper, and tracing down the consecutive series of his actions and association of ideas; *in going over the road where he has stumbled, he will infallibly trip again.*" 319.

Nor is it always easy to discriminate between eccentricity and insanity. Do we not, as Dr. Male observes, see a wretch disinherit his own children, who have committed no fault, and bestow his wealth upon a stranger? Another who pre-

fers poverty and rags, and communion with vagabonds, to the social intercourse and proffered kindness of his friends and relations? yet, who shall pronounce them insane? That they are so there can be no doubt; and their disease is perhaps of the most unfortunate character: for all their other actions being consistent with sound reason, it is difficult to convince a jury of their insanity, and to divest them of the power of heaping ruin upon their families, and disgrace upon themselves.

"The bodily marks which distinguish the insane are, a peculiar cast of countenance, familiar to those versed in the malady; a quick, oftentimes protruded and glistening eye; the body is generally costive; in some cases the insane person is enabled to sustain cold with impunity, and he is insensible to the agency of ordinary stimuli; and the stomach and bowels, from deficiency of irritability, require large doses of medicine to move them; among the physical phenomena of insanity, *M. Esquirol* observes that few are more constant or remarkable than want of sleep, and that peculiarly disagreeable odour from the body, as well as the excretions of the patients, which impregnates the clothes and bedding. They are devoured with a burning internal heat; and generally have a voracious appetite, and are afflicted with pain in some organ or part, especially the head, the chest, or the abdomen, which the unhappy sufferers are ready to attribute to the malevolence of their enemies." 320.

The *second* query cannot be answered by our authors, "as each case must rest on its own merits."

On the *third* query respecting the existence of lucid intervals, it is remarked, with truth, that the subject is beset with difficulties; for, in many cases, the patient can dissemble so well, for a limited period, as to appear perfectly rational, although the hallucination is deeply fixed in his mind. The following case from Haslam will elucidate this observation.

"A lunatic having received, or fancied he had received, an injury from his keeper, at the lunatic asylum at Manchester, threatened to be revenged, for which he was punished by confinement; he was afterward a patient in Bethlem Hospital, and gave *Dr. Haslam* an account of the transaction, of which the following is an abbreviation. 'Not liking this situation, I was induced to play the hypocrite; I pretended extreme sorrow for having threatened him, and, by an affectation of repentance, induced him to release me; for several days I paid him great attention, and lent him every assistance; he seemed much pleased with the flattery, and became very friendly in his behaviour towards me: going one day into the kitchen, where his wife was busied, I saw a knife; this was too great a temptation to be resisted; I concealed it, and carried it about with me; for some time afterward the same friendly intercourse was maintained between us, but as he was one day unlocking his garden-door, I seized the opportunity, and plunged the knife, up to the hilt, in his back.'" 323.

The *fourth* question on the probable chance of recovery must be resolved by taking into consideration a variety of circumstances respecting the modification of the malady, the violence of the symptoms, the duration and frequency of attacks, &c. When mania has acquired a systematic character, it is very difficult to remove it; so that after it has continued upwards of a year, patients at asylums, as Bethlem and St. Luke's are pronounced incurable, and treated accordingly. After the various articles on insanity which have appeared in this Journal, it would be needless to advert to the scanty information on its pathology, which meets the eye in the work before us.

NUISANCES.

Although there are many kinds of nuisances, our authors properly confine themselves to those which can be made the subject of medical or chymical investigation. These are such as are directly or indirectly detrimental to health, whether general or individual—destructive to comfort—injurious to property—obstructions to the free course of light, air, water, &c.

"The question, how far the salubrity of the atmosphere may be affected by the effluvia of particular manufactories, is one that the medical practitioner is often called upon to decide; and upon such an occasion let him beware that his judgment be not swayed by the fastidiousness of the surrounding inhabitants, nor warped by the clamours of invidious rivals, or interested opponents; as a man of science and integrity he is called upon to decide between two parties equally valuable to the state,—between the health and comfort of the citizen, and the prosperity of the manufacturer." 330.

The manufactories which have been considered exceptionable are arranged by our authors under four heads.—1st. Those extricating gaseous effluvia, the products of *putrefaction or fermentation*, as flax-steeping—cat-gut manufacture—slaughter-houses—tanneries—skinners, fell-mongers, curriers, &c. 2d. Those where fire is the agent of extrication, as brewing, distilling acids, incineration of animal substances, glue-making, horn-roasting, soap-boiling, gas-making, &c. 3d. Those which yield waste liquids that taint the neighbouring streams, as gas works, dying-houses, &c. 4th. Noisy trades, as copper-smiths, anchor-makers, gold-beaters, tinmen, &c. &c. We shall here introduce the observations of our authors entire, on this curious and interesting subject. They are in the best style of our authors, and they combine entertainment with instruction.

"On the manufactures and occupations above alluded to, we have to make the following observations.—

"(1) As the vegetable matter undergoes the putrefactive process in stagnant pools, the effluvia which arise are necessarily highly pernicious; while the waters become so poisonous as to destroy the fish contained in them, as well as to prove injurious to cattle that drink of them. In Italy the process of steeping flax or hemp is only permitted at the distance of some leagues from a town. ZIMMERMAN tells us that the effluvia from this source have been known to occasion a malignant fever, which proved fatal to the family in which it first began, and afterward spread its contagion through a whole country. LANCISI observes, that dangerous fevers are often prevalent at Constantinople, which owe their source to the hemp brought from Cairo, and which is put wet into the public granaries, and suffered to ferment during the summer. At Helmstedt there is annually in the autumn, when the flax is steeped in the Aller, an epidemic dysentery that prevails for several weeks.

"(2) The manufacture of starch can scarcely be considered, in itself, a nuisance, for although it be necessary to produce the acetous fermentation, in order to remove from the fecula any colouring matter, yet if sufficient attention be paid to the operation, and the water be properly let off from the settling vessels, no inconvenience can arise. A nuisance, however, of considerable magnitude may incidentally attend these manufactories, from the number of swine which are constantly kept by the starch maker, and the profit of which forms a part of his speculation, and which is so considerable that he can generally afford to sell the starch at prime cost, relying wholly upon the former trade for his profits.

"(3.) The process of tanning involves several operations of a very nauseous description; the hides, for example, undergo incipient putrefaction in order to loosen the epidermis, and to render the hair and other extraneous matter easy of separation from the true skin.

"(4) The peregrinations and vicissitudes of fate to which the horse is doomed during life has repeatedly furnished subjects of reflection; but few are aware to how many economical purposes his carcass is converted after death, and to how many noisome processes it gives rise. The dealers in dead horses, or *nackers*, as they are termed, begin their mercantile anatomy by taking off the shoes and disposing of them to the farrier; the skin is next stripped off, and sold to the tanner; the carcass is then cut into pieces, and boiled in large cauldrons of water, in order to extract the fatty matter, which, being skimmed off from the surface of the liquor, is '*rendered down*' and packed in cases for the soap-boiler, or the manufacturer of cart-grease. Whatever remains after this operation supplies the venders of dog's and cat's meat with a dainty article of sale; at length the views of the greedy trader are directed to the bones of this noble animal; a number of persons find employment in chopping them into small fragments, from which the marrow is then extracted by boiling for several hours, and added to the fat already obtained from the carcass; the dry remains are employed in the production of hartshorn by distillation; and after this process is finished, they are removed from the still, and calcined to whiteness, in order to

be mixed with clay for the manufacture of porcelaine; or they are consumed for the formation of ivory black.

"(5) The intolerable nuisance of a public brewery arises from the volumes of carbonaceous matter with which it overwhelms the neighbourhood. We shall therefore take this occasion to offer the remarks which we are prepared to make respecting the effects of smoke on the inhabitants of the metropolis, and on the methods which have been suggested for the mitigation of the evil. And upon this subject we entirely agree with an intelligent reviewer, that, after all, it is not a few chimneys attached to steam engines that infect the air of London with smoke: every house is busy in the work of contamination, although less observed, because administered by separate vents, and in divided doses.

"In the year 1661, a work was published by the celebrated JOHN EVELYN on the subject of this grievance, entitled 'FUMIFUGIUM; *or the Inconveniences of the Air and Smoake of London dissipated; together with some remedies humbly proposed to his sacred Majestie, and to the Parliament now assembled.*' The above 'short discourse' has become exceedingly scarce, but the reader will find an interesting account of its contents in the Journal of Science and the Arts. It is certainly a curious coincidence that the attention of John Evelyn should have been first excited on this subject by 'a presumptuous smoake issuing from one or two tunnels near Northumberland-house, and not far from Scotland yard,'—the very seat of the plots of our modern fumifugists! After adverting to the situation of the metropolis, 'built upon a sweet and most agreeable eminency of ground at the north side of a goodly and well-conditioned river, toward which it has an aspect by a gentle and easie declivity,' he proceeds to animadvert upon that 'hellish and dismall cloud of sea coale, which is not only perpetually imminent over her head, but so universally mixed with the otherwise wholesome and excellent air, that her inhabitants breathe nothing but an impure thick mist, accompanied with a fuliginous and filthy vapour, which renders them obnoxious to a thousand inconveniencies, corrupting their lungs, and disordering the entire habit of their bodies.' It appears that in Evelyn's time, brewers, dyers, lime-burners, and salt and soap-boilers, were the principal nuisances; and, 'since then,' says the editor of the new edition of the FUMIFUGIUM in 1772, 'we have a great increase of glass-houses, founderies, and sugar-bakers, to add to the black catalogue, at the head of which must be placed the fire engines of the water-works at London bridge and York-buildings, which leave the astonished spectator at a loss to detern ine whether they do not tend to poison and destroy more of the inhabitants by their smoke and stench than they supply with water;' to which sooty list, says the reviewer, in the Journal of Science and the Arts, above cited, 'what astonishing additions have been made, within the last thirty years, in and about London? How many new water-companies, and smoke-producing manufactories have been added to the catalogue? A newspaper cannot now be printed, nor a pound of meat minced for sausages, without a steam engine; to the same

smoky servant the druggist resorts to grind his rhubarb and to sift his magnesia,* and upon all possible occasions the services of the other elements is superseded by that of fire.' With respect to the deleterious effects of smoke upon the health of the inhabitants of our mighty city, much difference of opinion has existed; among Foreigners the air of London has the reputation of being extremely unhealthy, on account of the exhalation which arises from the use of coal; it excites in strangers, says *Zimmerman*, a considerable heat in the stomach, and sometimes a spitting of blood, and even nervous fevers which terminate in palsy. (*Experience in Physic. vol. 2. p.* 137.) It is hardly necessary for us to make any observation upon a prejudice so absurd and unfounded; *Evelyn* also seems, in our opinion, to attribute more evils to the smoke than *can be* well substantiated; 'I report myself,' says he, to all those who have been compelled to breathe the air of other countries for some years, if they do not now perceive a manifest alteration in their appetite, and clearness of their spirits, especially such as have lived long in France, and in the city of Paris.' Although we are not disposed to consider the smoky atmosphere of London as so destructive to health as some have imagined, we are not prepared to state that it is entirely harmless. Children are certainly less healthy in this city than in the country; and the superior rapidity with which iron becomes oxidized, indicates the existence of atmospheric impurities. The phenomena of vegetation also offers another demonstration of the same fact; *Evelyn* has the following curious remarks upon this circumstance; 'That the smoake destroys our vegetation is shown by that which was by many observed in the year 1664, when Newcastle was besieged, and blocked up in our late wars, so as through the great dearth and scarcity of coals, these fumous works were either left off, or diminished, divers gardens and orchards planted in the very heart of London, (as in particular, my Lord Marquis of Hertford in the Strand; my Lord Bridgewater's and some others about Barbican) were observed to bear such plentiful and infinite quantities of fruits, as they never produced the like before, or since, to their great astonishment; but it was by the owners rightly imputed to the penury of coales, and the little smoake which they took notice to infest them that yeare.'

"Although some difference of opinion may exist, as to the extent of the evil, in a medical point of view, we must all concur in agreeing upon the necessity of some plan by which it may be di-

---

* "By a visit to Apothecaries' Hall, or to any of the great manufacturing chymists, the stranger will be astonished at the number and utility of the applications of steam to the process of Pharmacy.

"*M. Dupin*, when speaking of the immense mechanical force set in action by the steam-engines of England, gives the following illustration of its amount.—The great pyramid of Egypt required for its erection the labour of above 100,000 men for twenty years; the action of the steam-engines in England, which are, at most, all managed by 36,000 men, would be sufficient to produce the same quantity of work, in 18 hours!!!

minished; we shall, therefore, proceed to offer some remarks upon the proposals which have been made, at different times, for obtaining so desirable an object.

"*Mr. Evelyn's* plan consisted in the removal of all smoking manufactories from London, 'five or six miles down the river Thames, or at least so far as to stand behind that promontory jutting out and securing Greenwich from the pestilential air of Plumstead marshes.' He then proposes gardens and plantations in and about the metropolis, and enumerates a variety of fragrant plants, suited to our climate, and calculated to sweeten and improve the air.*

"In the year 1682, Mr. *Justell* communicated to the Royal Society, '*An account of an Engine that consumes smoke, shown lately at St. Germain's Fair in Paris.*' *Dr. Leutmann*, of Wirtemburgh, described in his 'Vulcanus Famulans,' a stove which draws downwards, so that the contrivances of the *Marquis de Charbannes*, and others who have burnt their smoke by a downward draught of air were not original. *Dr. Franklin* in 1785 (*Memoirs of the Life and Writings of Benjamin Franklin, vol. 4. p.* 408) suggested a mode of burning smoke; but to the illustrious *Mr. Watt*, we are more particularly indebted for the first important hints upon this subject; his patent may be seen in the *fourth volume of the Repertory of Arts* for 1796, *p.* 226; and the great engines at the Soho manufactory have all along been worked without smoke; it is therefore not a little extraordinary, as a late reviewer has justly observed, that in the Report from the Committee of the House of Commons 'to inquire how far it may be practicable to compel persons using steam-engines and furnaces in their different works, to erect them in a manner less prejudicial to public health and public comfort,' and upon which report the bill of last session is founded, no notice is taken of *Mr. Watt's* suggestions and inquiries. In the Parliamentary Report, to which we have just alluded, there are two inventions for the destruction of smoke, which appear to have principally occupied the attention of the Committee, and which profess to accomplish the object, with a very considerable saving of fuel, viz:

"*Mr. Brunton's Fire Regulator.* In this patent a newly constructed fire-place is applied to the engine boiler, containing a circular grate, which is made to revolve slowly upon its axis; the fire upon this grate is fed in front by a kind of hopper continually delivering small coal, which, from the rotatory motion of the grate itself, becomes equally spread upon its surface, so as to maintain a thin fire, and a sharp draught; the coal is thus rapidly decomposed and burned; the smoke at first produced having to pass across the grate, and over the red hot and already coaked fuel.

"*Patent of Messrs. Parkes of Warwick.* The principal agent in this improvement is a current of air, admitted just beyond the end of the fire place, by means of an aperture which may be in-

---

* "It is supposed that the lime-trees in St. James's Park owe their existence to the suggestion of Evelyn."

creased, or closed at pleasure, and which the patentees term an '*air-valve.*' A small fire is first made to burn brightly at the back of the grate; coals are then filled in towards the front, in which direction the fire gradually spreads; their smoke necessarily passes over the clear fire, where it becomes sufficiently heated to constitute flame, as soon as it meets with a current of air entering at the valve; and a striking experiment with this apparatus consists in alternately shutting and opening the air-valve, which is accompanied by the alternate appearance and disappearance of the smoke.

"Instead, however, of insisting upon any form of fire-place, greater benefit would arise from an enactment respecting the height of chimneys; our intelligent reviewer, of whose remarks we have so frequently availed ourselves, observes, that by conveying *black* smoke, and other pernicious fumes into a capacious and very *lofty* chimney, much of the noxious matters that otherwise escape into the atmosphere are decomposed and precipitated or condensed within; of the truth of which, the chimney of the grand-junction engine, at Paddington, and that of the West Middlesex water-works, at *Hammersmith*, offer striking illustrations; when these machines are at work, the former produces little smoke, while the latter inundates the neighbouring gardens with perpetual showers of solid soot; and yet the only difference is in the relative altitude of the two chimneys; the boilers being, in all respects, set and constructed alike. A chimney from 150 to 200 feet would in most cases prove effectual, and the expense might be considerably lessened by making one shaft receive all the tributary fumes of many flues. But to return to the nuisance of breweries, from which we have made so long a digression; it is probable, that the smoke from these chimneys could not be remedied either by Brunton's or Parkes's patent, but the increasing the altitude of the chimney would seem to promise a mode of relief; we are also to look to the employment of steam as a substitute for fires; high pressure steam has been very extensively employed for this purpose in Whitbread's brewery, and the smoke has in consequence sustained a very perceptible diminution.

"(6) Sulphuric acid makers are continually indicted: and it would appear that by a scientific improvement in the process, the escape of the sulphurous acid, which constitutes the grievance, might to a great degree be obviated. How does it happen that, notwithstanding the cost of the materials necessary for the production of sulphuric acid, is in France at least double what it is in England, the French can afford to sell the article 25 per cent. cheaper than the English? the answer is obvious,—the greater part of the materials are sent off into the air, in the form of *sulphurous acid*, and *nitrous gas*, to the annoyance of the neighbouring animals and vegetables, and the ruin, too often, of the proprietor. See *Journal of Science and the Arts.* In a report drawn up in the year 1806 by Guyton, Morveau, and Chaptal, upon the subject of injurious manufactories, by command of the minister of the interior, it is declared that the distillation of acids can only prove dangerous from want of due precaution.

"(7) The manufacture of Prussian blue is necessarily attended with highly offensive vapours. The first part of the process consists in mixing hoofs and tups' horns with Russian or American potass, in large iron stills, to which heat is gradually applied, until the vessel become red hot; the animal matter and alkali being thus fused into a mass is laded out into iron pans, where it concretes into solid blocks, technically called *metals*.

"(8) The operation of unfolding the cows' horns by the application of heat is attended with a terrible stench; the trade in lanthorn leaves was formerly very considerable with Russia; but it was nearly annihilated by an edict of Catherine; the less flexible parts are made into combs; and the tips of the horns are sent to Birmingham for the manufacture of buttons.

"(9) Owing to the viscid nature of the materials, it is impossible to make varnish without burning the animal matter, which occasions a stench of the most insufferable kind; and is so suffocating, that very lately two workmen lost their lives in a manufactory of this article in Gray's-inn-lane.

"(10) The animal matters employed in this process give rise to a stench which has repeatedly formed the ground of indictment. The most nauseous part of the trade, however, consists in concentrating the waste lees, for the purpose of obtaining by fusion in a reverberatory furnace, an article which is called BLACK ASH, and which contains, among other salts, the *sulphuret of soda*.

"(11) 'Renderers of tallow' are persons who convert the butcher's fat, &c. into tallow.

"(12) The process of smelting different ores is the most injurious of all the operations of art, although to the senses it may be less nauseous than those in which animal matter undergoes decomposition by heat, or putrefaction. These evils, however, by the ingenious application of various mechanical and chymical expedients, have in many instances been very materially diminished, and in others entirely obviated; this is strikingly illustrated in several large works for smelting lead ores; and the proprietors of the Hafod copper works, at Swansea, are at present engaged in an experimental inquiry into various plans which have been proposed for diminishing, or preventing the ill effects which arise from the metallic fumes. Acquainted as we are with the liberality and science of these gentlemen, we have little doubt of the result; and we mention the circumstance in this place in order to recommend similar efforts on the part of persons engaged in other works; and at the same time for the purpose of preparing the reader for some observations which we shall take occasion to offer, on the subject of the law of nuisance, in relation to its operation in stopping works of such national importance. It would be premature to enter into any detailed account of the chymical means which promise a successful resource on this occasion; we shall only observe that the great mischief seems to arise from the quantity of asenic, so universally present in the ores of copper; and there is reason to hope, from the experiments already made by Mr. J. H. *Vivian*, that *Lime* may be usefully employed in pre-

venting its volatilization. The author of the present note has had ample opportunities of investigating the effects of arsenical fumes, which arise from the burning-houses in Cornwall, and from the great copper works carried on at Hayle in that county, and they appear to be especially pernicious to graminivorous quadrupeds; horses and cows lose their hoofs; and the latter animals are not unfrequently seen, in the vicinity of the works, crawling along on their knees; they are also subject to a cancerous affection in their tails; and milch cows lose their milk. The herbage also suffers materially from the poisonous smoke, especially in wet seasons; corn is blighted in the ear, and never perfects its seed, unless care be taken to select at that period such ore as will yield but little sublimate. Cabbages do not appear to suffer in the least; nor are potatoes materially injured; and it is not the least curious circumstance in the history of these works, that the apple-trees in their vicinity grow and bear fruit without sustaining any of those ill effects which we should have anticipated, but, on the contrary, the arsenical fumes appear to destroy all the insects which usually infest such trees, and their trunks exhibit a cleanness which would delight the horticulturist. The men employed in these works are occasionally affected with a cancerous disease in the scrotum, similar to that which infests chimney-sweepers; it is however probable that this arises from the immediate application of the excoriating material made by the hand in the act of rubbing the part. A similar affection was a short time since observed in a manufactory, in which the workmen were engaged in making an arsenical solution for a green dye, used in calico printing.

"(13) Gas works. We have lately learnt, that a method has been adopted to get rid of the nuisance which has arisen from the residual liquor from these works, by evaporating it in pans, placed in the ash-pit of the furnace, and by which the iron bars of the fireplace are at the same time kept cool, and are therefore much longer preserved. The contrivance may be seen at the gas works in Worship Street." 331 to 339.

Here we close our first analytical article. Our readers will easily have formed, in the course of our review, a tolerably correct estimate of the nature and merits of the work. Our own opinion, which, however, is of no more importance than that of any other individual who reads or examines the publication, may be conveyed in two words. It is executed with considerable ability as far as the *medical* literature and science are concerned; but the whole is so diluted, or we might say adulterated, with useless or irrelevant matter, as to render the publication far less creditable to the authors and more expensive to the public than it would have been, were it composed in a terse didactic style, and on a plan that rigidly excluded meretricious ornament and tiresome superfluity.

IX.

Lectures on the Operative Surgery of the Eye; being the Substance of that Part of the Course of Lectures on the Principles and Practice of Surgery which relates to the Diseases of that Organ. Published for the Purpose of assisting in bringing the Management of these Complaints within the Principles which regulate the Practice of Surgery in General. By G. J. Guthrie, Deputy Inspector of Hospitals, &c. &c. &c. Octavo. pp. 500, five plates, coloured. London, August, 1823.

It is a well known fact that, previously to the year 1817, no lectures were delivered in Great Britain on the diseases of the eye, unless the concise and unsatisfactory observations made in the schools of anatomy on some of the operations be looked upon as such. The consequence was, that neither the surgeon nor the public considered a knowledge of this class of complaints as essentially necessary in the education of medical youths, and the treatment, of course, fell into the hands of the oculists, who made a good job of this oversight on the part of the general surgeon. But the various casualties of a protracted war in distant climates rendered it imperative on many of the physicians and surgeons of the army and navy to pay greater attention to the diseases of the eye, which impulse was greatly strengthened by the application and success of the late Mr. Saunders. From that time a gradual change has been operating in the minds of the profession, and the greater number are now convinced of the propriety of acquiring a thorough knowledge of the diseases of the eye by the same means, and in the same manner, as all other subjects in medicine and surgery are studied.

Great credit is due to Mr. Guthrie and his able colleague, Dr. Forbes, for instituting a course of lectures on the diseases in question, at the Eye-Infirmary in Mary-le-bone Street, where students in the West End of the Town may perfect themselves, not only in the theory but the practice of this important branch of surgery. The work before us comprises a part of these lectures, and is now published at the earnest desire of a great body of students, who were solicitous to have the means of reviewing the said prelections more at leisure, and when they would stand in need of their assistance in the course of their private practice afterward. Mr. Guthrie, with great good sense, has avoided, as much as possible, entering into controversies—and where he has thought it right to differ in opinion with either the dead or the living, he has

done so with that liberality and suavity which befit a learned and enlightened profession. Would to God that every member of it would make a firm determination to follow the same course!

We agree with Mr. Guthrie that it is an erroneous public opinion, kept up by those whom it concerns, that the organ of sight is of a very delicate nature, and so exquisitely sensible that it requires the greatest delicacy of touch—the utmost nicety of management. The regular students must be taught otherwise.

"They must learn, that the eye is not a delicate organ, that it will suffer more comparative violence, with less injury, than any other of importance in the whole body; that, so far from being exquisitely sensible, it is, when exposed in a healthy state, nearly the reverse, only becoming permanently so on the occurrence of inflammation; and that the ablest and most successful operators are neither the most gentle nor the most tender in their proceedings. The opinion of the exquisite sensibility of the eye has arisen from the pain which is felt on the admission of a small piece of dirt, or a fly, between the eyelids; but this occurs from a wise and preservative provision of nature, on account of the insensibility of the eyeball itself. Let the eyelid be raised, and the same piece of dust applied to the surface of the eye, no pain, and scarcely a sensation, will be produced: remove the piece of dirt, turn out the lid, and while it is retained everted, place the piece of dirt upon it, no greater sensation will be induced than is felt when it is applied to the eyeball. The inference is, that both surfaces, when touched separately, are nearly insensible to this species of irritation. But let the same piece of dirt be put between the eyelid and the eyeball, and the sensation produced is exquisitely painful. To give rise to this sensation it is necessary that the two surfaces should come in contact, and that the foreign body be grasped between them. If this were not the case, an irreparable injury would often occur to the transparent part of the eye before it would be observed; and if the raising of the lid and the separation of the surfaces did not nearly annul sensation, an operation could not be performed for cataract; for, who could bear quietly the sensation which must arise from pushing a needle into the eye, if it were analogous to that arising from a fly or dry solid substance between the eye and the lids? The experiment may be tried in a very simple and conclusive manner by any one on himself, by merely keeping the lids apart by an effort of the will, when the end of the finger may be placed boldly on the eyeball without any inconvenience. Inflammation, by enlarging the vessels, gives rise to pain in the same way, and the sensation is at first as if some extraneous matter were interposed between the lids." *Preface*, vii.

The supposed difficulties attendant on the performance of operations on the eye partake of the same error, and have been kept up for the same reasons. Few persons, in fact,

can estimate the liberties which may be taken with the eye, until they have seen many operations on that organ, when the false ideas they may have imbibed will be completely removed, and new feelings will arise, in admiration of the wisdom and goodness of the divine architect.

The work commences with a long and very important lecture on INVERSION OF THE EYE-LIDS, containing a copious account of the opinions of ancient and modern authors, especially of the French and German schools. A perusal of this lecture will evince the great superiority of the English over both the above-mentioned schools, as will be seen in the course of our analysis.

This disease has received various designations, as trichiasis, entropeon, phalangosis, ptosis, &c. according to the theories which have been formed of its nature and causes. "But the complaint is essentially the same under whatever name it may be characterized, differing perhaps only in degree." It consists in an inversion or irregular direction of one or more of the eyelashes—either alone or accompanied by an alteration of the natural curvature of the eyelid, in consequence of which the edge of the tarsus is directed inwards, and great irritation ensues from the unusual friction of the hairs on the eye-ball. Inflammation of the conjunctiva lining the palpebræ and covering the ball of the eye, is the first effect of an inversion of one or more hairs. This inflammation is, in time, communicated to the cornea, which becomes opaque, and frequently ulcerates. When the disease has got into a chronic state, the integuments become of a redder colour than natural—the folds of skin usually observed at the upper part of the eyelid disappear—it is altogether thickened —and the cartilage assumes a vicious or unnatural curvature, most observable at the inner angle:—this, with the contraction of the conjunctiva at the commissures, and a slight ulceration or excoriation which frequently takes place at the outer canthus prevents the separation of the eyelids from being accomplished without considerable pain. Mr. Crampton, of Dublin, appears to have been the first to point out the principal cause of the disease (contraction of the angles of the lids) and also the proper *indication* of treatment. We say *indication*, for Mr. Guthrie does not quite coincide with that distinguished surgeon as to the precise *method* of cure.

"He (Mr. C.) first demonstrated that the levator palpebræ superioris was not inserted into the upper or convex margin of the tarsal cartilage, as was previously supposed, but into the parts connected with it and the conjunctiva; in consequence of which he lays considerable stress on the contraction and thickening of this part of the membrane being a principal cause of the inversion,

and therefore recommends its division; but in this I cannot coincide, and suspect it has not the influence he attributes to it in the formation of this disease, and therefore conclude that the subsection, or division of it, which he recommends, is at least unnecessary, if not injurious." 10.

Mr. Guthrie is inclined to think, that "the inversion of the edge of the lid is more clearly dependent on the contraction of the angles, the undue action of the orbicularis muscle, and particularly that part of it called the musculus ciliaris, as well as on a vicious curvature of the cartilage." But these slight discrepancies of opinion we shall pass over, in order to quote the conclusions to which Mr. Guthrie's observations have led him.

"1. That the derangement of the eyelashes, constituting trichiasis, is frequently the consequence of disease; but seldom or never arises from unnatural formation, or from an accidental or too luxuriant growth of the cilia.

"2. The relaxation of the integuments, or a partial paralysis of the levator palpebræ, in a natural and otherwise healthy state of the eye and eyelids, are not primarily concerned in the formation of entropium, and never alone give rise to it; although, if other derangement take place, they may (by removing some power of resistance to it) assist in its more complete formation.

"3. That, in a general or complete inversion of the edge of the tarsus of the upper lid, the swelling of the external parts and the spasmodic action of the orbicularis palpebrarum, first tend to the formation of the disease, and which is completely established by the contraction of the angles of the lids and the accidental inversion of such hairs as become stiff and matted by the vitiated discharge from the meibomian glands and conjunctiva.

"4. That the change in the curvature of the lid takes place principally from the contraction of the angles, whilst under the influence of the orbicularis, and not from the contraction of the conjunctiva, corresponding to the superior broad ligament, which supports the tarsus, and maintains the shape of the upper eyelid.

"These conclusions do not, of course, apply to such partial cases of trichiasis as result from the formation of a cicatrix, tumour, or other direct and obvious cause, to which I have already alluded." 15.

There are few diseases, in which so little alteration in the methods of operating has taken place since the days of Hippocrates, as in entropeon. The Father of Physic recommended a ligature to be passed through a fold of skin, by means of a needle, which, when tied, was allowed to remain until it ulcerated its way out. If this was not sufficient, the operation was to be repeated. Celsus advises two methods—the first, to burn the roots of the hairs with a red hot needle—the second, to raise and cut off a fold of skin, bringing the edges of the wound together by ligatures. A scarification was then to be made in the upper eyelid, under the roots of

the lashes, that, being raised from the inferior part, they might point upwards. But leaving the ancients, we shall descend to modern times. Scarpa contented himself with removing a portion of the skin of the eyelid. Beer recommends the evulsion of the hairs in the slightest cases, although he admits that he never effected a cure by it but in children; while, in the more severe and intractable instances, he advises the removal of a fold of skin, and the use of sutures. Weller says, if there be a deranged form of the edge of the eyelid, a radical cure will rarely be practicable, and confines his advice to the occasional removal of the offending hairs. Lastly, Jaeger recommends the removal of the edge of the eyelid, including the cilia, the detailed account of which operation Mr. Guthrie has extracted from a pamphlet of Dr. Hosp, and avers that it differs in nothing from the operation recommended by the late Mr. Saunders, and published many years before Jaeger first performed it.

"I have seen," says Mr. Guthrie, "three persons on whom this operation has been performed, and in two of them by Mr. Saunders. In all the deformity was considerable, and the relief obtained only partial.

"The operation of Dr. Jaeger being similar, the same objections of permanent deformity and imperfect cure apply to both; and a mutilation of this nature can indeed only be tolerated by comparison with the misery arising from the disease. Mr. Saunders admits this; and Dr. Jaeger, I presume, must do the same, and only adopts it because he is unacquainted with any operation that will always succeed without a mutilation of the part. What Mr. Saunders says, that no operation known previously to his time, not even that of Mr. Crampton, invariably succeeded, may be true; and therefore he conceived it to be an incurable disease, and to be relieved only by the excision of the part: but as the alterations I have made in Mr. Crampton's method render it in my opinion equal to the cure of every stage of the disease, I may be permitted to express my disapprobation of the operation recommended by Mr. Saunders and Dr. Jaeger; and this I am the more called upon to do, because there are some persons whose opinions deservedly carry great weight with them, who are generally correct in their observations, and whose sentiments on other points I respect, that still continue to recommend the operation of excision as performed by Mr. Saunders, as the only remedy in inveterate cases of entropium." 26.

If a hair turns inward without any discoverable cause, Mr. Guthrie coincides in the directions given by Mr. Travers, "that it must be kept plucked until, by the improved condition of the hair gland under the means used, the disease is removed." Mr. Travers also remarks that "if a case occurs in which the vitiated site or curvature of one or more cilia does not admit of correction, the corresponding follicle should

be obliterated by repeatedly touching it with a fine caustic pencil." This method, Mr. Guthrie observes, is often effectual, and often ineffectual, inasmuch as it is apt to give rise to greater inconvenience from the cicatrices which may be formed by its use.

"Where two or three hairs only turn in, with an irregularity of that part of the tarsus or contraction of the conjunctiva lining it, which may be perceived on turning it out, by a peculiar whiteness and thickening of the part, the operation described by Mr. Crampton ought to be preferred: 'Let the eyelid be well turned outwards by an assistant; let the operator then with a lancet divide the broad margin of the tarsus completely through by two perpendicular incisions, one on each side of the inverted hair or hairs; let him then, by a transverse section of the conjunctiva of the eyelid, unite the extremities of the perpendicular incisions. The portion of the cartilage contained within the incisions can then, if inverted with ease, be restored to its original situation." 29.

Mr. Crampton further suggests the propriety of *completely* insulating, in difficult cases, a small portion of the margin of the tarsus, leaving it connected to the eyelid by the external integument only. In cases of chronic inflammation, Mr. G. observes, where there is a commencing but incomplete general inversion of the cilia, the cure of the inflammation will be sufficient to restore the conjunctiva to its natural state, and the cilia to their original direction, without any especial means being employed for the cure of the commencing inversion; but when this proceeds too slowly, the application of the sulphuric acid, recommended by Helling and Quadri, should be resorted to, and will always be found sufficient. In many cases, Mr. G. thinks, in which there is little incurvation of the cartilage, and a moderate contraction of the angles, this plan will supersede the operation just now to be described.

"Quadri, who has written a quarto in praise of this method, and which he also liberally attributes to Helling of Berlin, applies it in the following manner: 1. A small quantity of concentrated *sulphuric* acid is to be applied, by means of a piece of smooth solid wood, to the centre of the affected part of the lid, and rubbed along on an oval space, a little exceeding in length the part on which the inverted hairs are situated, and from three to four or six lines in width, according to the inveteracy of the disease. The part ought to be wiped dry after the acid has been applied about ten seconds, in order to prevent any of it from getting into the eye.

"2. The application of the acid is now to be repeated, taking care that it may approach the edge of the lid, and touch the parts immediately over the inverted eyelashes; and it is to be continued or repeated a third or a fourth time, until the contraction of the parts

draws the hairs from within outwards, or to their natural situation; when the operation is completed, and the part ought to be again thoroughly dried." 30.

We now come to the operation recommended by Mr. Guthrie himself.

"The operation I recommend as equal to the cure of the worst cases, is to be performed in the following manner: The head being properly supported, the eyelids are to be gently separated; the patient is to be desired to refrain from making any effort whatsoever, and the surgeon is to wait until he sees that the lids are perfectly quiescent. A small narrow knife, or one blade of a blunt-pointed scissors, is then to be introduced close to the external angle, and a perpendicular incision made, of from a quarter, to half an inch in extent, or of a sufficient length to render the eyelid quite free; the quiescent state of the lids, and especially of the orbicularis muscle, enabling the surgeon to cut closer to the angle than he otherwise could do, and thus to divide the ligament, or at least the extremity of the cartilage. Another incision is to be made, in a similar way, at the inner angle; but this should not include the punctum lacrymale, as I have never found it necessary to do so; and although the tears may continue to pass through the lateral canal into the sac, when the punctum has been included in the incision, they do not do so with equal freedom, and there is some observable deformity. The length to which the perpendicular incisions at both angles ought to extend, must now be decided upon by the appearance of the part; they must be continued, if necessary, by repeated touches with the scissors, until that part of the eyelid containing the tarsal cartilage is perfectly free, and is evidently not acted upon by the fibres of the orbicularis muscle, which lie upon it. This frequently causes the incisions, and especially the internal one, to be longer than is usually supposed to be necessary. The part included in the incisions is now to be completely everted, and retained by the fore finger of the operator's left hand against the brow of the patient; when, if any lateral attachment be observed, acting upon, and drawing, or confining the lid, it is to be divided, which is in fact still elongating the incision. On letting the eyelid fall on the eye, the edge of the tarsus and the hairs will frequently appear in the natural situation, in consequence of the relaxation of the angles, which bound them down; but if the tarsal cartilage has become altered in its curvature, this will be immediately perceived; it will turn inwards at its ciliary edge, and be completely bent at its extremities, more especially at the inner one, where it is more powerfully acted upon by the musculus ciliaris. On desiring the patient to raise the lid, he readily attempts it, but the action of the levator, in such cases of vicious curvature, causes the cartilage partly to resume its situation; and on examination, the curve will be observed to be so permanently vicious for about an eighth of an inch at each extremity, and especially at the inner, that it cannot be induced to resume its actual situation.

When this is the case, the cartilage is to be divided, exactly at the place where it is bent, in its length, and in a direction at a right angle with the perpendicular incision. The portion thus slit is only connected with the common integuments of the eyelid; and although this incision scarcely exceeds one, and never two eighths of an inch, at both extremities, and in general is only necessary at the inner, it enables the surgeon to remove the altered curvature of the part. Mr. Crampton recommends that the two inner points of the perpendicular incisions should be now united by the subsection of Ætius and Paulus Ægineta, that is, by a division of the conjunctiva, which he supposes to be in a contracted state; but I have always found this division to be useless, and even injurious. It is useless, because it has no influence on the part, as a *simple* division of that kind unites or fills up in a very short time; and it is injurious, because, if made across the cartilage, it is apt to form a ridge or cicatrix which irritates the eye, and of which, among others, I have seen one particular instance. The operation being thus far accomplished, a fold of skin is to be cut away from that part of the eyelid included between the incisions; three or four ligatures are then to be introduced, and the divided parts, from which the fold has been removed, are to be neatly brought together by the ligatures, each of which ought to be twisted, and then fastened to the forehead by several short slips of sticking plaster, the ends being turned over the plasters near the hair, and retained in that situation, to prevent their slipping. In raising the fold of skin, care should be taken to do it regularly with the fingers; it is also essential to the success of this part of the operation that it be done as close as possible to the margin of the eyelid. It may then be grasped by the forceps of Beer, which have transverse pieces, slightly curved for the purpose at their extremities, and close with a spring. The piece thus included, which need not be large, may be cut away at one or more strokes of a large pair of curved or straight scissors. The ligatures should be inserted first at each angle; and when the vicious curvature is considerable, I not only pass it through the skin, but take care that *the internal* one shall include, at its lower part, the *outer edge* of the margin of the eyelid, which, from its firmness, retains that ligature much longer than those which are passed through the skin only, and tends to prevent the possibility of a relapse. The ligatures thus placed are to be equally drawn up on the forehead, until the eyelid is *completely everted*, when they are to be fastened as directed. In order to prevent any attempt at union but by granulation, or a filling up of the incision, the edges are to be slightly touched with the sulphas cupri; the eye and eyelids are now to be carefully cleansed; a piece of lint, spread with the unguentum cetacei, is to be placed upon them; a small compress is to be put under the edge of the eye-bone and orbit; a retaining bandage covers the whole, and completes the different steps of the operation. When the disease is not considered of an inveterate nature, the ligatures may be introduced through the fold of skin without cutting any portion away. They give little additional pain, and are

infinitely more effectual than any other suspensorium with which I am acquainted, and they ought to be assisted by strips of adhesive plaster placed between them. The operation, accomplished with all the care I have described, will still fail, if equal attention be not daily paid to the subsequent dressing, on which, indeed, more depends than on the operation itself; so much, indeed, that I am disposed to consider inattention to it the most certain cause of failure. In more than seventy operations that I have performed, I have never known inflammation or other bad consequences ensue. The patient is to be kept perfectly quiet until the next morning, when the bandage and lint are to be removed, the eye carefully fomented and cleansed with warm water, and the dressings replaced. On the second day, great attention must be paid, that the ligatures keep the lid sufficiently raised; and if any union has taken place by adhesion at the angles of the incisions, it must be broken through with the probe. On the third day the plasters attaching the ligatures to the forehead, will in general require to be exchanged. The ligatures themselves must be supported by straps of plaster placed vertically between them; the edges of the incisions should again be touched with the sulphas cupri, or separated by the probe. The great art of the cure now consists in causing the incisions to be filled up by granulations only, so that the eyelid may be lengthened as much as possible, and which can only be effected by a continuance of the means indicated. In a few days more, and especially by the continued elevation of the lid, the ligatures cut their way out, during which period the eyelid is gradually lowered, and by the time the incisions have filled up, it will have resumed its natural situation, and the cure will be completed. There will, in general, be an indentation in the ciliary margin of the tarsus, where the incisions were made, but this is sometimes scarcely perceptible and never detrimental. If the patient should have kept the lids closed at the commencement of the operation by the action of the orbicularis, the first incision may not have been made as close as might be desired to the angle of the lids; and in this case a hair or two at that part may not afterward obtain quite its, or their, original direction, and cause some inconvenience; but this does not often happen, as these hairs are usually carried clear of the eye.

"The operation on the under eyelid is analogous to that on the upper, but is less severe, as the parts are more simple. It consists, in inveterate cases, of a perpendicular incision made with the scissors at the outer angle, and carried downwards to such extent as will perfectly relieve the inversion. This incision, by dividing the fibres of the orbicularis at that part as well as the conjunctiva, renders the muscular fibres powerless; and when it is properly made, the patient is incapable of moving the lid. One ligature is now to be inserted at the margin of the lid, and the threads fastened below the jaw by sticking plaster, so as to keep the eyelid everted." 35.

The subsequent treatment of the eye is much less than might be supposed. The principal cause of irritation being

When this is the case, the cartilage is to be divided, exact
place where it is bent, in its length, and in a direction a
angle with the perpendicular incision. The portion th
only connected with the common integuments of the eye
although this incision scarcely exceeds one, and never two
of an inch, at both extremities, and in general is only nec
the inner, it enables the surgeon to remove the altered c
of the part. Mr. Crampton recommends that the two inn
of the perpendicular incisions should be now united by
section of Ætius and Paulus Æginetа, that is, by a divisio
conjunctiva, which he supposes to be in a contracted stat
have always found this division to be useless, and even i
It is useless, because it has no influence on the part, as
division of that kind unites or fills up in a very short tim
it is injurious, because, if made across the cartilage, it
form a ridge or cicatrix which irritates the eye, and o
among others, I have seen one particular instance. The o
being thus far accomplished, a fold of skin is to be cut aw
that part of the eyelid included between the incisions; t
four ligatures are then to be introduced, and the divide
from which the fold has been removed, are to be neatly
together by the ligatures, each of which ought to be twis
then fastened to the forehead by several short slips of
plaster, the ends being turned over the plasters near th
and retained in that situation, to prevent their slipping. I
the fold of skin, care should be taken to do it regularly w
fingers; it is also essential to the success of this part of t
ration that it be done as close as possible to the margin of t
lid. It may then be grasped by the forceps of Beer, whi
transverse pieces, slightly curved for the purpose at thei
mities, and close with a spring. The piece thus included
need not be large, may be cut away at one or more stro
large pair of curved or straight scissors. The ligatures
be inserted first at each angle; and when the vicious curv
considerable, I not only pass it through the skin, but tak
that *the internal* one shall include, at its lower part, the *ou*
of the margin of the eyelid, which, from its firmness, reta
ligature much longer than those which are passed through
only, and tends to prevent the possibility of a relapse. T
tures thus placed are to be equally drawn up on the forehea
the eyelid is *completely everted*, when they are to be fast
directed. In order to prevent any attempt at union but by
lation, or a filling up of the incision, the edges are to be
touched with the sulphas cupri; the eye and eyelids are
be carefully cleansed; a piece of lint, spread with the ung
cetacei, is to be placed upon them; a small compress is to
under the edge of the eye-bone and orbit; a retaining b
covers the whole, and completes the different steps of the
tion. When the disease is not considered of an inveterate
the ligatures may be introduced through the fol- in
cutting any portion away. They give little addi

infinitely more effectual than any other suspensorium with which I am acquainted, and they ought to be assisted by strips of adhesive plaster placed between them. The operation, accomplished with all the care I have described, will still fail, if equal attention be not daily paid to the subsequent dressing, on which, indeed, more depends than on the operation itself; so much, indeed, that I am disposed to consider inattention to it the most certain cause of failure. In more than seventy operations that I have performed, I have never known inflammation or other bad consequences ensue. The patient is to be kept perfectly quiet until the next morning, when the bandage and lint are to be removed, the eye carefully fomented and cleansed with warm water, and the dressings replaced. On the second day, great attention must be paid, that the ligatures keep the lid sufficiently raised; and if any union has taken place by adhesion at the angles of the incisions, it must be broken through with the probe. On the third day the plasters attaching the ligatures to the forehead, will in general require to be exchanged. The ligatures themselves must be supported by straps of plaster placed vertically between them; the edges of the incisions should again be touched with the sulphas cupri, or separated by the probe. The great art of the cure now consists in causing the incisions to be filled up by granulations only, so that the eyelid may be lengthened as much as possible, and which can only be effected by a continuance of the means indicated. In a few days more, and especially by the continued elevation of the lid, the ligatures cut their way out, during which period the eyelid is gradually lowered, and by the time the incisions have filled up, it will have resumed its natural situation, and the cure will be completed. There will, in general, be an indentation in the ciliary margin of the tarsus, where the incisions were made, but this is sometimes scarcely perceptible and never detrimental. If the patient should have kept the lids closed at the commencement of the operation by the action of the orbicularis, the first incision may not have been made as close as might be desired to the angle of the lids; and in this case a hair or two at that part may not afterward obtain quite its, or their, original direction, and cause some inconvenience; but this does not often happen, as these hairs are usually carried clear of the eye.

"The operation on the under eyelid is analogous to that on the upper, but is less severe, as the parts are more simple. It consists, in inveterate cases, of a perpendicular incision made with the scissors at the outer angle, and carried downwards to such extent as will perfectly relieve the inversion. This incision, by dividing the fibres of the orbicularis at that part as well as the conjunctiva, renders the muscular fibres powerless; and when it is properly made, the patient is incapable of moving the lid. One ligature is now to be inserted at the margin of the lid, and the threads fastened below the jaw by sticking plaster, so as to keep the eyelid everted." 35.

The subsequent treatment of the eye is much less than might be supposed. The principal cause of irritation being

When this is the case, the cartilage is to be divide
place where it is bent, in its length, and in a dir
angle with the perpendicular incision. The p
only connected with the common integuments of
although this incision scarcely exceeds one, and n
of an inch, at both extremities, and is general is
the inner, it enables the surgeon to remove the
of the part. Mr. Crampton recommends that the
of the perpendicular incisions should be now u
section of Ætius and Paulus Æginetа, that is, by
conjunctiva, which he supposes to be in a contra
have always found this division to be useless, ar
It is useless, because it has no influence on the
division of that kind unites or fills up in a very
it is injurious, because, if made across the car
form a ridge or cicatrix which irritates the ey
among others, I have seen one particular instanc
being thus far accomplished, a fold of skin is to
that part of the eyelid included between the in
four ligatures are then to be introduced, and
from which the fold has been removed, are to
together by the ligatures, each of which ought
then fastened to the forehead by several shor
plaster, the ends being turned over the plast
and retained in that situation, to prevent their s
the fold of skin, care should be taken to do it
fingers ; it is also essential to the suc[illegible] of th
ration that it be done as close as po[illegible] the
lid. It may then be grasped by th[illegible] of
transverse pieces, slightly curved[illegible]
mities, and close with a spring.
need not be large, may be cut aw[illegible]
large pair of curved or straight s[illegible]
be inserted first at each angle ; and
considerable, I not only pass it th[illegible]
that *the internal* one shall include, a[illegible]
of the margin of the eyelid, which,
ligature much longer than those whic[illegible]
only, and tends to prevent the possibil[illegible]
tures thus placed are to be equally draw[illegible]
the eyelid is *completely everted*, when
directed. In order to prevent any atten[illegible]
lation, or a filling up of the incision, the
touched with the sulphas cupri ; the eye
be carefully cleansed ; a piece of lint, spre[illegible]
cetacei, is to be placed upon them ; a small c[illegible]
under the edge of the eye-bone and orbit ;
covers the whole, and completes the differen
tion. When the disease is not considered of
the ligatures may be introduced through the
cutting any portion away. They give little ad

infinitely more effectual than any other suspe
I am acquainted, and they ought to be assisted
sive plaster placed between them. The oper
with all the care I have described, will still fai
be not daily paid to the subsequent dressing,
more depends than on the operation itself; so
I am disposed to consider inattention to it the
of failure. In more than seventy operations that
I have never known inflammation or other bad
sue. The patient is to be kept perfectly quiet unt
ing, when the bandage and lint are to be remove
fully fomented and cleansed with warm water, and
placed. On the second day, great attention must
ligatures keep the lid sufficiently raised; and if a
ken place by adhesion at the angles of the incis
broken through with the probe. On the third
attaching the ligatures to the forehead, will in ge
be exchanged. The ligatures themselves must b
straps of plaster placed vertically between them
the incisions should again be touched with the sulph
parated by the probe. The great art of the cure
causing the incisions to be filled up by granulation
the eyelid may be lengthened as much as possible,
only be effected by a continuance of the means in
few days more, and especially by the continued ele
lid, the ligatures cut their way out, during which pe
lid is gradually lowered, and by the time the incisio
will have resumed its natural situation, and the
ed. There will, in general, be an indentatio
n of the tarsus, where the incisions were m
scarcely perceptible and never detrimen
have kept the lids closed at the comme
the action of the orbicularis, the fi
made as close as might be desired t
is case a hair or two at that part
or their, original direction, and c
does not often happen, as these
e eye.
der eyelid is analogous to t
e parts are more simple. I
icular incision made with
d downwards to such
This incision, by
s well as the co
nd when it is
id. One
the th
ep

When this is the case, the cartilage is to be divided, exactly a
place where it is bent, in its length, and in a direction at a
angle with the perpendicular incision. The portion thus
only connected with the common integuments of the eyelid
although this incision scarcely exceeds one, and never two e
of an inch, at both extremities, and in general is only neces
the inner, it enables the surgeon to remove the altered cu
of the part. Mr. Crampton recommends that the two inne
of the perpendicular incisions should be now united by t
section of Ætius and Paulus Ægineta, that is, by a divisio
conjunctiva, which he supposes to be in a contracted state
have always found this division to be useless, and even ir
It is useless, because it has no influence on the part, as
division of that kind unites or fills up in a very short ti
it is injurious, because, if made across the cartilage, it
form a ridge or cicatrix which irritates the eye, and
among others, I have seen one particular instance. The
being thus far accomplished, a fold of skin is to be cut a
that part of the eyelid included between the incisions:
four ligatures are then to be introduced, and the divi
from which the fold has been removed, are to be nea
together by the ligatures, each of which ought to be t
then fastened to the forehead by several short slip
plaster, the ends being turned over the plasters n
and retained in that situation, to prevent their slippi
the fold of skin, care should be taken to do it regu
fingers; it is also essential to the success of this pa
ration that it be done as close as possible to the mar
lid. It may then be grasped by
transverse pieces, slightly curv
mities, and close with a spring.
need not be large, may be cut a
large pair of curved or straigh
be inserted first at each angle;
considerable, I not only pass it
that *the internal* one shall include
of the margin of the eyelid, whi
ligature much longer than those w
only, and tends to prevent the pos
tures thus placed are to be equally
the eyelid is *completely everted*, w
directed. In order to prevent any
lation, or a filling up of the incision
touched with the sulphas cupri; the
be carefully cleansed; a piece of lint,
cetacei, is to be placed upon them; a
under the edge of the eye-bone and o
covers the whole, and completes the dif
tion. When the disease is not considered
the ligatures may be introduced through t
cutting any portion away. They give little

infinitely more effectual than any other suspens
I am acquainted, and they ought to be assisted
sive plaster placed between them. The operat
with all the care I have described, will still fail,
be not daily paid to the subsequent dressing, o
more depends than on the operation itself; so n
I am disposed to consider inattention to it the m
of failure. In more than seventy operations that
I have never known inflammation or other bad
sue. The patient is to be kept perfectly quiet unt
ing, when the bandage and lint are to be remove
fully fomented and cleansed with warm water, and
placed. On the second day, great attention must
ligatures keep the lid sufficiently raised; and if
ken place by adhesion at the angles of the inci
broken through with the probe. On the third
attaching the ligatures to the forehead, will in g
be exchanged. The ligatures themselves must
straps of plaster placed vertically between the
the incisions should again be touched with the sul
parated by the probe. The great art of the cur
causing the incisions to be filled up by granulat
the eyelid may be lengthened as much as possibl
only be effected by a continuance of the means
few days more, and especially by the continued
lid, the ligatures cut their way out, during which
lid is gradually lowered, and by the time the inc
n, it will have resumed its natural situation, and
pleted. There will, in general, be an inden
argin of the tarsus, where the incisions we
mes scarcely perceptible and never detr
ld have kept the lids closed at the c
n by the action of the orbicularis,
been made as close as might be des
in this case a hair or two at that
te its, or their, original directio
this does not often happen, a
of the eye.
the under eyelid is analog
, as the parts are more sir
erpendicular incision ma
carried downwards t
nversion. This incis
that part as well as
verless; and wh
noving the lid.
the lid, and
er, so as to
ve is
e of

When this is the case, the cartilage is to be divided, exactly at the place where it is bent, in its length, and in a direction at a right angle with the perpendicular incision. The portion thus slit is only connected with the common integuments of the eyelid; and although this incision scarcely exceeds one, and never two eighths of an inch, at both extremities, and is general is only necessary at the inner, it enables the surgeon to remove the altered curvature of the part. Mr. Crampton recommends that the two inner points of the perpendicular incisions should be now united by the subsection of Ætius and Paulus Ægineta, that is, by a division of the conjunctiva, which he supposes to be in a contracted state; but I have always found this division to be useless, and even injurious. It is useless, because it has no influence on the part, as a simple division of that kind unites or fills up in a very short time; and it is injurious, because, if made across the cartilage, it is apt to form a ridge or cicatrix which irritates the eye, and of which, among others, I have seen one particular instance. The operation being thus far accomplished, a fold of skin is to be cut away from that part of the eyelid included between the incisions; three or four ligatures are then to be introduced, and the divided parts, from which the fold has been removed, are to be neatly brought together by the ligatures, each of which ought to be twisted, and then fastened to the forehead by several short slips of sticking plaster, the ends being turned over the plasters near the hair, and retained in that situation, to prevent their slipping. In raising the fold of skin, care should be taken to do it regularly with the fingers; it is also essential to the success of this part of the operation that it be done as close as possible to the margin of the eyelid. It may then be grasped by the forceps of Beer, which have transverse pieces, slightly curved for the purpose at their extremities, and close with a spring. The piece thus included, which need not be large, may be cut away at one or more strokes of a large pair of curved or straight scissors. The ligatures should be inserted first at each angle; and when the vicious curvature is considerable, I not only pass it through the skin, but take care that *the internal* one shall include, at its lower part, the *outer edge* of the margin of the eyelid, which, from its firmness, retains that ligature much longer than those which are passed through the skin only, and tends to prevent the possibility of a relapse. The ligatures thus placed are to be equally drawn up on the forehead, until the eyelid is *completely everted*, when they are to be fastened as directed. In order to prevent any attempt at union but by granulation, or a filling up of the incision, the edges are to be slightly touched with the sulphas cupri; the eye and eyelids are now to be carefully cleansed; a piece of lint, spread with the unguentum cetacei, is to be placed upon them; a small compress is to be put under the edge of the eye-bone and orbit; a retaining bandage covers the whole, and completes the different steps of the operation. When the disease is not considered of an inveterate nature, the ligatures may be introduced through the fold of skin without cutting any portion away. They give little additional pain, and are

infinitely more effectual than any other suspen
I am acquainted, and they ought to be assisted
sive plaster placed between them. The opera
with all the care I have described, will still fail
be not daily paid to the subsequent dressing,
more depends than on the operation itself; so
I am disposed to consider inattention to it the
of failure. In more than seventy operations that
I have never known inflammation or other bad
sue. The patient is to be kept perfectly quiet u
ing, when the bandage and lint are to be remo
fully fomented and cleansed with warm water, ar
placed. On the second day, great attention mu
ligatures keep the lid sufficiently raised; and if
ken place by adhesion at the angles of the in
broken through with the probe. On the thi
attaching the ligatures to the forehead, will in
be exchanged. The ligatures themselves mu
straps of plaster placed vertically between th
the incisions should again be touched with the su
parated by the probe. The great art of the cu
causing the incisions to be filled up by granul
the eyelid may be lengthened as much as possi
only be effected by a continuance of the mean
few days more, and especially by the continue
lid, the ligatures cut their way out, during whic
lid is gradually lowered, and by the time the i
up, it will have resumed its natural situation, an
completed. There will, in general, be an ind
liary margin of the tarsus, where the incisions w
is sometimes scarcely perceptible and never de
patient should have kept the lids closed at the
the operation by the action of the orbicularis
may not have been made as close as might be d
of the lids; and in this case a hair or two at th
terward obtain quite its, or their, original direct
inconvenience; but this does not often happen
usually carried clear of the eye.

"The operation on the under eyelid is anal
upper, but is less severe, as the parts are more
in inveterate cases, of a perpendicular incision
sors at the outer angle, and carried downward
will perfectly relieve the inversion. This i
the fibres of the orbicularis at that part as wel
renders the muscular fibres powerless; and
made, the patient is incapable of moving the
now to be inserted at the margin of the lid,
ened below the jaw by sticking plaster, so s
everted." 35.

The subsequent treatment of the eye might be supposed. The principal cause

removed, the inflammation gradually subsides, the cor
tiva daily assumes a more natural appearance, the op
of the cornea diminish. Mild stimulants, such as Ba
liquor opii sedativus, the liq. plumb. sub. the solut. a
nit. (two to four grains to the ounce) in distilled wat
the best applications after the incisions are healed.

"Where the conjunctiva is thickened, or granulated,
gous, the latter remedy dropped into the eye twice a day
useful; and in more inveterate cases, a saturated solutio
sulphas cupri in distilled water applied with a camel's hai
and well washed off with plain water, is often of essen
vice. In every case, some mild ointment should be appli
edges of the lids at night, and any secretion which may ha
and become hard, should be removed by the aid of war
in the morning. Indeed, the lids, whilst any vitiated
remains, should be carefully examined *every* morning, a
attention paid that any hair which has changed its direct
having been clogged by the discharge, be replaced in its
or pulled out if it appears to resume its place with difficu
best ointments are, the ung. cetacei, the ung. zinci oxydi
ment of Janin, the ung. hydr. albi gr. 2 ad ʒj. the ung. h
et oxydi rubri, six times reduced with the ung. cetace
during the day by the occasional use of any of the mild
lotions." 37.

By the above means, Mr. Guthrie avers that a dise
has been an opprobrium to surgery since the days
crates, may be always cured, under whatever na
scription it may be included. Six illustrative cas
pended which we recommend to the serious and
perusal of the ophthalmic practitioner. Upon the
section of Mr. Guthrie's work is exceedingly int
contains much originality—and evinces great po
crimination, with no want of critical acumen.

RELAXATION OF THE UPPER LI

This is, for the most part, a symptomatic disea
quently follows as a consequence of apoplexy, be
panied by hemiplegia or more partial paralysis.
it is evident, that few cases can be bettered by
operation—in fact, only those which are really
quence of a relaxation of the skin and integumen
from previous distention, and combined with a
levator palpebræ—or when the disease is conge
operation which has been found useful is, that f
the removal of a fold of skin from the eyelid, w
minution of the length of the integument takes
terbalancing the relaxation which had previous
If, however, the levator palpebræ be in a state
operation can only be partially successful.

"In trichiasis, the skin removed should always

from over the tarsal cartilage, whilst in a case of pure relaxatio it should be in that folding part of the integuments above the up per edge of the cartilage, or nearer to the eyebrow. Scarpa con siders sutures as unnecessary, and advises the edges of the woun to be brought into contact and retained by means of strips of ad hesive plaster; but especially by applying a compress upon th supercilium, and another upon the inferior edge of the orbit, an over these a uniting bandage. I am disposed, however, to insi on the use of sutures, and I have reason to believe they assist ma terially in affecting a more perfect cure. If the atony of the le vator palpebræ should depend on mere debility from inaction, th suspension of the lid will be sufficient with the attempts at motio of the patient, to effect a cure, which will also be assisted by sligh stimulant applications; but if, on the contrary, there be a re paralysis of this muscle, I do not see how the operation can d more than raise the eyelid to a certain extent, so as to remove part of the deformity, and the cure of the paralysis must be a tempted according to the nature of the immediate cause. Indeed in such a case the operation should follow rather than precede th general treatment." 43.

Cases in elucidation are detailed by our author.

EVERSION OF THE EYELIDS.—ECTROPEON.

This disease consists in a turning outwards of the upper o under eyelid. It is much less frequent than the opposite dis ease, (entropeon,) and but rarely affects the upper eyelid The symptoms and appearances of the part depend entirel on the nature and causes of the disease, and differ from eac other in a remarkable degree, demanding imperatively a re gulated method of cure. Inattention to this has given rise t operations, and the administration of remedies that were ver inapplicable. In order, then, to elucidate this subject, ou author has deemed it advisable to regard ectropium as e four different species, or, at least, as produced in four differ ent ways.

"1. As depending on chronic inflammation, accompanied b contraction of the skin and of the integuments of the lid; bu without any marked cicatrix.

"2. As depending on acute inflammation, or immediately fol lowing it, with relaxation or swelling of the conjunctiva.

"3. As depending on the contraction occasioned by a cicatrix on the healing of a wound, on, or in, the immediate vicinity of th eyelid.

"4. On paralysis.

"This disease, in whatsoever way it may be induced, is neve productive of so much distress to the patient as the inversion o the lid. It is in general a complaint of inconvenience, and of an noyance from its unsightliness, rather than of constant pain; an as the eye is seldom much implicated by it, unless it be of lon

standing, or of great severity, the sufferer, if a poor man; is capable of following his occupation for months and even years, before the extension of the disease to the eyeball causes a sufficient obstacle to prevent it. At first there is merely a dropping (stillicidium) of the tears, and an increased and vitiated discharge from the irritated glands of the eyelids; this is accompanied by excoriation and redness of the skin of the cheek, and is followed by a slight defect in vision, resulting from the thickened secretions which pass over the cornea, as well as from the greater exposure of the conjunctiva covering it. The conjunctiva of the eyeball is not always inflamed, neither is that lining the eyelid necessarily thickened, unless in certain states, to be hereafter described: whilst in others, the eyeball may not only be inflamed, but, in a subsequent stage, the cornea may be rendered opaque, and the conjunctiva covering it thickened, dried, and withered, so as totally to alter the natural appearance of the eye. The conjunctiva, forming the fold between the eyeball and the lower lid, may be so swelled and thickened, as even to form an almost horny substance between them; whilst, in other cases, the whole of the conjunctiva palpebræ may protrude, so as to hide the ball of the eye, and present a most hideous object to the spectator; a good representation of which has been given by Dr. Vetch in the fourth figure of his second plate." 51.

This disease was well known to the ancients. Hippocrates alludes to one cause of it, viz. a fungous state of the eyelids, and directs the thickened part to be removed with the knife, the cut surface to be cauterized. Celsus, considering it as a consequence of the removal of too much skin in the operation for entropeon, says, "when too much of the eyelid is wanting, (alluding to the upper,) there is no remedy for it; but if a small part only, then it may be cured by making an arched incision, with the ends upwards, a little below the eyebrow, but not so deep as to injure the cartilage." The cure is then to be completed by granulation. Etius (from Antyllus) has improved on the operation of Celsus; but we cannot pursue the historical part of the work before us. We hasten, therefore, to lay before our readers the practical directions of Mr. Guthrie himself.

"The first kind of disease, or that which is dependent on chronic inflammation, usually takes place after the long continuance of that form of it, which has obtained the name of lippitudo, and prevails more or less in almost every case of it of long standing, both in the child and the adult. In this complaint, which begins as an inflammation of the meibomian glands, extending to the conjunctiva palpebræ and the edges of the eyelids, we find, after a time, that the disease assumes a chronic form; the itching and pain diminish; the redness of the conjunctiva subsides; it becomes smoother, of a yellower colour, and the vessels are more distinctly marked; small ulcerations have formed at the roots of the hairs; the edge of the lid becomes thicker and of a more shining reddish

colour than natural, and is also excoriated in various parts; the eyelashes have mostly fallen out; the secretion from the meibomian glands is considerably augmented in quantity and altered in quality, it exudes and passes over the edge of the eyelid with the tears, which the irritation of the eye, from any exciting cause, produces in greater quantity than can be carried off by the puncta lachrymalia. In poor persons, this matter dries and forms crusts at the roots of the hairs, glues the eyes together during the night, and is a constant source of irritation to the skin of the eyelid and cheek. These parts become in turn excoriated, are frequently studded with small spots of ulceration, and the skin loses in consequence its natural pliability, becoming hardened, irritable, and contracted. If the eye be examined when in this state, the remaining cilia of the lower lid will be found to turn downwards, and the edge of the eyelid within the hairs, and where the ducts of the meibomian glands open, will be so much turned outwards as to show the reddish yellow conjunctiva lining the palpebra, and giving the peculiar appearance to the eye, which characterizes this complaint. If the eye be irritated by a high wind or exposure to cold, the tears stand upon the edge of the lid, or fall over, constituting what is often called a blear eye. This partial, or rather commencing eversion of the eyelid is only so far a necessary consequence of the disease as it depends on the excoriation, contraction, and hardening of the skin, the result of the passage of the vitiated secretions over it, and which, by drying on it, increase the irritation. That this is the cause of the eversion, is demonstrated by the simple experiment of pressing on the skin so as to draw it downwards, or increase the contraction, when the eyelid becomes immediately everted. That this artificial assistance is merely adding what occurs when the disease is in a more advanced stage, is proved by the fact of the eversion being more complete when the contraction is greater; and after it has proceeded so far as to turn the cartilage outwards, the firmness and elasticity of which opposes at first a powerful resistance, the complete eversion is promptly effected; for the external contraction is now only opposed by the ligaments uniting the extremities of the tarsal cartilages to the angles of the eyelid, which have been gradually yielding, and are no longer capable of offering any effectual counterpoise to the increasing power acquired by the contracting skin. That this view of the subject is correct, I am in the habit of proving almost every week at the Infirmary, by contrasting the different stages to the gentlemen attending; when that which may not be so apparent on the inspection of a single case, is clearly demonstrated on the examination of several. The altered appearance of the skin is also strongly confirmative of the opinion. In the first state of the first species, it is only rough, hardened, and slightly contracted. In the second, it is more contracted and apparently deficient in quantity; the lid can, however, be restored to its natural position by pressure made with the finger at the external angle. In the last stage, however, or that of complete eversion, the deficiency of skin, from its contraction, is so evident as not to be overlooked,

and the eyelid cannot be restored to its situation by the finger in many instances, whilst it is only accomplished with difficulty in all.

"The edge of the lower lid is not straight when in its natural situation, but has a gentle curvature corresponding to the eyeball, which becomes more apparent, and is perhaps slightly increased, when completely everted, from being drawn downwards in the centre; and from the inferior ligament and the conjunctiva offering less resistance at that part than at any other: whilst at the angles the alteration is infinitely greater, so much so, that at the outer angle, the eversion does not gradually commence, but is suddenly effected, as if the ligament at that part was twisted rather than stretched. It is usual to consider this disease as dependent on an elongation of the tarsus; which, if it mean the tarsal cartilage, or that part of the lid which receives its shape or form from it, and on the outer edge of which the hairs are situated, is incorrect; the structure of the cartilage not admitting of such extension, and the only part which can be elongated is that portion of the eyelid, at the two extremities of the cartilage, which unite it to the upper lid, and form the inner and outer angles. This union, which is a ligamentous one, is so very short at the outer angle, as to admit of little stretching: and we find accordingly, that when complete eversion takes place, it is effected by a twisting at this part, rather than by an elongation. The cartilage, however, in consequence of the unnatural direction it has been forced to take, assumes a different or vicious curvature, which is more or less observable according to the length of time the disease has existed. It is this alteration of curvature which causes the lid to stand out from the eye, and appear to be elongated, when the eversion is suddenly overcome by operation or otherwise, and has therefore led to what I conceive to be, in the two first species of this disease, an error, viz. cutting out a portion of the lid, and forcibly altering, by ligature, the curvature of the part, instead of leaving this process to the efforts of nature, assisted in a gentle manner by art. That these are sufficient in the more simple states of disease, is proved, by the fact that a too long continuance of the means employed will ultimately give rise to a disease of an exactly opposite nature, a case of which I shall hereafter relate." 57.

Here Mr. Guthrie enters on a critical examination of some positions of Scarpa relating to the subject of ectropeon, which we cannot follow very closely. Scarpa appears to regard the disease as of two distinct species, as far as regards the causes—"the one arising from a preternatural tumefaction of the palpebra, which not only separates its edge from the eyeball, but also presses upon it in such a manner, as ultimately to evert it—the other produced by a shortening of the skin covering the eyelid, or that of the neighbouring parts, by which the ciliary edge is, in the first instance, separated from the ball of the eye, and afterward gradually turned outwards, together with the whole of the eyelid." This latter species of eversion appears to be that described by Mr.

Guthrie; but Scarpa seems to consider this species as generally incurable, inasmuch as the principal cause consists in the loss of a portion of the skin of the eyelid or surrounding parts, which no artifice hitherto known can restore.

"This quotation," says Mr. Guthrie, "proves that Scarpa was not aware of, or did not think it necessary to notice, that species which I have just described; but my object in referring to his work is not directed to this point, but to that part of his statement in which he says, 'this effect (the eversion) no sooner takes place, than it is succeeded by another no less inconvenient, the tumefaction of the internal membrane of the eyelid, which also greatly contributes to complete the eversion,' &c. &c. That this is not a constant occurrence, I have no hesitation in affirming, and that it is, on the contrary a rare one in the species I have referred to; a fact which, while it shows the propriety of the division I have made, is also of importance, as it influences materially the mode of cure; and the first four cases to be related are incontrovertible proofs establishing the correctness of my opinion. In denying, then, the fungous state of the conjunctiva, I by no means intend to imply that it retains its natural characters without alteration. I have, on the contrary, noticed its primary changes; and I have now to state, that as the eversion takes place, the exposed and everted conjunctiva becomes thickened, of a more general yellowish-red colour, but not granulated, and is constantly bedewed with the tears and vitiated secretions of the adjacent parts. The thickening is not such, however, as to enable an operator to remove it with a knife or scissors, or to render such proceeding necessary, for it subsides with the removal of the complaint. According to the views I have given of this species of disease, the indications of cure are two; 1st, to relieve the contraction of the skin externally; 2d, to restore and retain the lid in its proper situation, until the unnatural curvature of the cartilage has been overcome, and the chronic inflammation removed; when the cure will be completed. The first indication is in some measure fulfilled by washing the external parts with warm water, so as to leave the skin as clean as possible. It is then to be carefully dried and repeatedly anointed with the unguentum zinci oxydi, for three or four days, so as to form a covering which shall protect it from the matters which usually pass over it. It is necessary here to bring to our recollection, that the skin is merely contracted from irritation: and is disposed, from the inherent properties of our nature, to resume its natural appearance on the subsidence of the cause of irritation. It is in a different state from that forming the cicatrix of an ulcer; which, although it be called skin, is in reality only a smooth membrane, in some respects resembling it, but possessing neither its furrows, nor, of course, its great extensibility, whilst it is equally destitute of the elasticity depending on continuity of structure. The skin thus situated and relieved from irritation, becomes softer and more pliable, ceases to contract, and if it does not even relax, is at least in a favourable state to yield to a mild extension. This is ac-

complished, and with it the second indication, by the application of the sulphuric acid of the shops in the following manner. The lid having been previously cleansed, so as to prevent its slipping, the conjunctiva is to be gently wiped dry, and everted as much as possible, so as to show the part where it begins to be reflected over the eyeball. The upper eyelid ought to be a little raised by the finger of an assistant, and the patient should be desired to look upwards. The blunt end of a common silver probe is then to be dipped into some sulphuric acid, and rubbed with its side flat upon the conjunctiva, so that every part may be touched by the acid. The round point of the probe should be carried as far as where the reflection to the ball begins, but that part of the conjunctiva which covers it should be preserved inviolate. The punctum lachrymale, caruncle, and semilunar fold, are also to be avoided; but the external angle, as well as every other part, must be carefully rubbed. The effect of the acid will be observed by the conjunctiva turning white where it has been touched by it; and in order to prevent the acid from affecting the eyeball, a stream of water should now be directed over the eyelid by an elastic gum syringe. If the acid should not appear to have turned the conjunctiva sufficiently white, it may be repeated with the same precautions; and if the patient washes the eye afterward in cold water, no inconvenience will result, the pain is comparatively trifling, and very few persons complain of it. The application of the acid should be repeated every fourth day; and when applied in the manner directed, it does not cause a slough, but a general contraction of the part, which is, however, only perceptible after two or three applications, by its effect in inverting the lid, which gradually begins to take place. After six or eight applications the cure will be more than half accomplished, and in most cases of this species of eversion, the thickening of the conjunctiva will have subsided; if the operator should have become bolder in the use of the acid, slight ulcerations may be produced, but these are favourable to the completion of the cure. The ung. zinci oxydi is to be constantly applied to the skin, and the ung. hydr. nitrati diminished in strength by the admixture of the ung. cetacei, in the proportion of four or six parts to one, to the edge of the lids and roots of the hairs every night, so as to produce a moderate sensation of smarting.

"The immediate effect of the acid is not confined to, neither does it cease in four days, but remains for a much longer period: so that if the use of it be continued until the eyelid be entirely restored to its proper situation, the continuance of its action in producing contraction will cause an inversion of the eyelid, of which I give an instance in Case III. and whence the precaution now to be observed, of a longer interval between the applications of the acid, after the lid has two-thirds recovered from the state of eversion, in order to prevent such an accident taking place. The occurrence of it is, however, a valuable fact, as it proves the efficacy of the practice, and the power of a remedy, which if it be capable, when too frequently or too violently applied, of causing an inversion of the eyelid, must, if correctly employed, be sufficient to restore it to its natural state." 62.

Of the second species, or that dependent on acute inflammation, or immediately following it with relaxation or swelling of the conjunctiva, Dr. Vetch has given a very excellent description, at page 226 *et seq.* of his work, which is quoted by Mr. Guthrie.

In young children, our author observes, an eversion of one or both eyelids is not an infrequent occurrence during the purulent inflammation of the parts—especially on any attempt being made to examine the eyes whilst the child is crying. This eversion can always be relieved at the moment, by taking hold of the eyelid at each angle with the finger and thumb, and turning it inwards, whilst, or after it has been drawn downwards. Passing over some observations on the practice of foreign ophthalmologists, we come to that of Sir William Adams. This gentlemen having found the methods then in use for the cure of ectropium insufficient, was induced to try a new method, by cutting out a portion of the eyelid in the shape of the letter V, of which practice he details four successful cases—all of the second species. Mr. Guthrie, after quoting Sir William's directions for the operation, makes the following remarks:—

"This operation is founded on the idea of the eyelid being elongated beyond the power of recovery, either by the assisted or unassisted efforts of nature, and therefore requiring to be shortened to restore it to its proper length. This supposition, in regard to the two first species, is certainly erroneous; for four-fifths of the eyelid cannot be elongated, and the remaining fifth part is only so partially stretched, in these cases, as not to form an irremediable obstacle to the retention of the part in its natural position. That it does not do so, I have given a positive proof, in showing that the opposite state of disease may be readily induced; and Beer, whose authority must be decisive, at page 137 of his first volume, when on this subject, gives an express caution not to apply the lapis infernalis too frequently, or an inversion of the lid will be the consequence. According, then, to the principles which regulate the practice of surgery in all other cases of disease, this operation ought not to be performed in either of the two first species, as the same effects may be produced by more simple means, with little pain, without one day's confinement, and certainly with less deformity, (even if it be merely temporary,) inasmuch as there will not be an external incision. In this opinion I am not singular; for Mr. Samuel Cooper has quoted, in his Dictionary of Surgery, the following observation of Mons. Roux on this subject: 'What Sir W. Adams says, with a view of enhancing the value of his own method, about the frequent recurrence of ectropium, when the conjunctiva is simply cut out, is a gratuitous assertion, contradicted by experience. I have already, in a great number of cases, undertaken the cure of ectropium in the common way: the operation always succeeded as much as the degree or other

circumstances of the disease allowed; and I have not yet observed an instance of a relapse.'

"It will be admitted by every one, that, as the second species of eversion essentially consists in a fungous or granulated state of the conjunctiva, with, for the most part, a swelling, either sensible or insensible, at the angle, where the membrane passes from the eyelid to the ball of the eye, and which is even said to be, with a contracted state of the external skin, in some cases, the cause of the eversion; the indications of cure must be, first, to remove the diseased growth or state of the conjunctiva; secondly, to restore the lid to its natural situation.

"In order to accomplish the first indication, recourse must be had to the knife, the scissors, or such remedies as, acting partly as caustics, partly as stimulants, gradually restore the conjunctiva to its natural state. When this membrane is either fungous or granulated, I may, I believe, say, without entering into particulars, that it is now very generally admitted that the knife and scissors are the most objectionable means of cure, and are nearly, if not altogether, abandoned: which at once establishes the propriety of the practice of the ancients, by stimulants and caustics; and, among our contemporaries, of Beer and Scarpa in particular. I am, however, disposed to prefer the use of sulphuric acid, every four days, and a gentle application of the sulphate of copper daily, or every second day, to the means recommended by either of them; and I have no hesitation in affirming, that the cure effected by these means, in addition to those minor remedies I have already noticed for the cure of the first species, will be complete and permanent. This point being settled, the only remaining question for consideration is, whether the cure can be accomplished in less time by the operation of cutting out a portion of the eyelid, than by the treatment more usually recommended. To judge only from the statements and cases which have been published, the answer would be decidedly in the affirmative, as they would lead to the belief that every thing was done by the scissors, both in relation to the cutting out of the angular portion, and the removal of the fungous or granulated state of the conjunctiva. But we have the authority of Sir W. Adams for believing that the method of removing a granulated surface of the eyelid by the scissors, as recommended by Mr. Saunders, is incompetent to the purpose, more especially in the lower lid; and he introduced a knife in order to supersede the scissors, which knife has properly yielded to the use of escharotics. On these points, and on the incompetence of the scissors, I perfectly agree; and therefore draw what I conceive to be a correct inference, that if the scissors are not competent for the purpose intended at one time, they are equally unfit, in the same kind of case and under similar circumstances, at another. When the fold of conjunctiva is the principal cause of eversion, and has become hard or horny, it ought to be removed by the scissors, and a compress and bandage should be applied over the eye; but as the scissors never cut away the whole of a granulated surface, it must be subsequently

restored to its natural state by the operations of nature, either alone or assisted by stimulants or caustics, in the same manner as in the preceding states of disease; which fact being understood places the two methods on a par. If there be, however, no fungous conjunctiva lining the cartilage, and merely a hardened swelling or fold at its angle of union with the eyeball, then the operation will be more advantageous in regard to time.

"If, in judging this operation by the general principle of surgery, I have been obliged to reject it in the two first species of this complaint, I by no means wish to condemn it in all; and I have now to show, in the third species, in what way it may be highly useful." 71.

This third species, or that caused by a contraction from cicatrix, has always been considered as a very intractable complaint, and only curable when the eversion is not complete, and the cicatrix not extensive nor firmly attached to the bone beneath.

"In this species, the appearances and actual situation of parts differ materially from the other two, and are influenced by different circumstances. It is well known that the first step towards the cure of an ulcer or wound, is the drawing in of the surrounding parts, in a manner commensurate with the growth of the granulations, which are to fill up the vacuity that has been made by the progress of the ulcer; and by the time cicatrization has taken place, the cicatrix bears no proportion to the size of the original wound. But this process of contraction does not stop here; it continues after the ulcer has healed, especially in loose parts; and in burns of the neck, it is capable of drawing down and fastening the chin to the breast. This diminution in the quantity of new formed parts continues until there is little left to mark where the solution of continuity existed: but this little does not resemble the original structure; it is firmer, harder, more stringy, and somewhat resembling the nature of ligament. The cure has been effected at the expense of the surrounding parts, which if loose, as in the neck or the eyelid, may be drawn into a very considerable extent. In consequence of a knowledge of this fact, our attention, in cases of burns in the neck, should be invariably directed to the position of the head, which must be kept backwards until long after the wound has healed, in order to counteract, as much and as mechanically as possible, this tendency to contraction, and to force nature to form more new skin, or a larger cicatrix, which she is always very unwilling to do, and is often indeed incapable of doing. The same thing takes place on the eyelid; and if an ulcer be allowed to heal quickly, eversion, in a greater or less degree, is an invariable consequence. In the first and second species, the operation of this cause is slight, and on the edge of the eyelid, or cartilage; in the third it is greater, and on the whole external surface of the cartilage, which is turned downwards, whilst the eyeball is more exposed; the whole of the conjunctiva of the under lid is distinctly seen, and forms something resembling an inclined plane from its angle of

reflection over the eyeball, outwards and downwards. The deformity is more striking. In the second and third species, the conjunctiva always forms more or less of a sulcus or hollow, with the eyeball at the angle of reflection; in the third, this part is fully exposed, the conjunctiva is drawn downwards; the tears always flow over the cheek; the curvature of the tarsus is altered; the ligaments are more stretched, and the elongation of the eyelid becomes more apparent; the conjunctiva is sometimes fungous, or granulated, and occasionally but little affected, or altered, but in many instances it assumes a lippitudinous appearance; the cicatrix is hard, and for the most part firmly attached to the cheek-bone." 73.

It was for the cure of this species that Bordenave recommended the double operation of the removal of the cicatrix and of the fold of the conjunctiva, which although not successful in effecting a perfect cure, was productive of much relief to his patients. It was, after all, only returning in some measure to the practice of the ancients. That it was not sufficient, is attested by Scarpa and Beer—and that the German ophthalmologists have not hitherto done much towards relieving it is shown by a case related by Professor Dzondi, of Hallé, and now published by Mr. Guthrie, at page 73 of the present work.

"To effect a cure of this species of eversion, the indications are two in number: first to remove the cicatrix of the old wound, with the strong membranous threads which attach it to the bone beneath; and then, secondly, to give such permanent support to the eyelid as will enable it to resist the contractile power of the granulations during the cicatrization of the wound below.

"The first indication is to be fulfilled by a single or double incision, from a little below the external to the internal angle of the eye, following the curve of the eyelid and of the orbit, as far and as deep as may be found sufficient for the removal of the cicatrix and of the cellular attachments to the bone beneath, which will be found exceedingly strong and firm, and sometimes requiring a dissection completely upon, or even within the edge of the orbit. These adhesions are to be taken away, for, if only divided, they will reunite with greater firmness. The lid may then be raised to its proper situation, and every thread of cellular membrane, which seems to draw it downwards in the slightest degree, must be divided.

"The second indication was formerly attempted to be accomplished by supporting the eyelid by sticking plasters placed across it, which answer very well until the cicatrization begins; but then they cease to offer a sufficient counteracting power, from the yielding nature of the parts to which they are attached; and the eyelid and the sticking plasters are drawn down together. What is wanting, then, is evidently an opposing force, or counteraction, in a different direction, which shall be competent to prevent the contraction of the granulations in the wound, and the drawing in of

the surrounding skin, which I have already shown in the instance of burns in the neck may be done, by great care and attention, in keeping the head backwards.

"This opposing force was sought for by Bordenave, in the removal of a fold of the conjunctiva from the inside of the lid; but has seldom or never, in cases of severity, been found sufficient; and when both operations were repeated and assisted in every way, as in the case of Professor Dzondi, they were only effectual with a submission to pain and inconvenience, which can scarcely be expected from any person.

"The removal of an angular portion of the lid, as proposed by Sir William Adams, and more especially in addition to the removal of the horizontal fold of conjunctiva, gives the opposing power required, in a degree quite sufficient to restrain the cicatrizing process from drawing the surrounding skin downwards, and a cure is therefore speedily and effectually accomplished. The removal of a V-like piece from the eyelid, and the approximation of the edges of the wound by sutures, shorten the part considerably and bind it over the eyeball: they alter the vicious curvature of the cartilage, and bring it nearly to a straight line, the object formerly desired to be obtained by the application of plasters. This straightening of the eyelid, which is effected in cartilaginous, ligamentous, and comparatively unyielding parts of the eyelid, is also permanent for a period equal to the contractile power *inherent* in the skin and granulations for a *certain* time after the cicatrix is completed; and therefore the powers being equal, or rather against the cicatrix, the healing of that part is rapidly effected by the granulations filling up the wound, and the skinning process covering it in, by the formation of a new membrane, and not at the expense of the surrounding old skin.

"That the effect is produced by shortening the eyelid beyond, and not by merely restoring it to its natural state, is proved by the fact, that the eyelid, in its natural state, never offers a resistance equal to withstand the cicatrizing process below; of this the disease itself is proof, as it could not otherwise have occurred; and therefore restoring it to its natural state only, will have no influence in promoting a cure, further than is gained by the cicatrization in a different direction. That this is the true principle on which the operation can be supported, will, I believe, be conceded by all those who are capable of estimating the value of opposing powers; and in performing the operation, it must be borne in mind by the surgeon, who will therefore cut out just as much as will bring the eyelid into this state, and yet not cause so great a separation of the edges of the wound, that the sutures cannot bring it together without such a degree of extension as will prevent the union of the parts by the adhesive process. This portion to be removed may be taken out as far inwards as the middle of the tarsal cartilage when necessary, of which case the 6th is an example; but it is in general more advantageously done nearer to the external angle, and the quantity to be removed will not, I believe, or, as far as I know ever exceed one quarter, and seldom more than an eighth, or from that to

three sixteenths of an inch. The depth of the incision must be in proportion to the width of the part removed at the ciliary margin of the lid, in every case, however, extending beyond the cartilage. The operation for the third species consists, first, in the removal of the adhesions which the cicatrix has formed to the cheek-bone, with the whole or such part of the cicatrix as can be with propriety taken away; secondly, in the cutting out of an angular portion of the eyelid, near the external canthus; thirdly, in the removal of the diseased fold of the conjunctiva (if there be any) by a horizontal stroke of the scissors, assisted by the forceps; fourthly, in the application of two sutures, to bring the divided edges of the eyelid together; one close to the margin of the lid, the other near the point of the angle below; these are to be drawn just so tight as to bring the parts in close apposition, when they are to be cut off close to the knots, and supported by slips of sticking plaster; fifthly in the dressing of the wound made by the removal of the adhesions to the bottom with very fine lint, and applying a bandage over the whole." 77.

The subsequent dressings require attention. The object intended by the sutures will almost always be effected by the third day, when the edges of the angular wound will be seen to adhere, and the sutures are consequently of no more service. They are therefore to be cut, and the threads removed. Strips of adhesive plaster should be applied in their place, with a compress and suitable support. Cases follow in elucidation of the text, for which we must refer to the work.

This eversion of the upper eyelid is a much less common disease than that of the under. It usually occurs in consequence of the contraction which takes place on the formation of a cicatrix, or from an abscess within, or a disease of the edge of the orbit. The effects of this disease are analogous to those already described, and lead, in the same manner, to the loss of sight. The attempts at cure do not always succeed.

The operation required for the cure of eversion of the upper eyelid, caused by cicatrization of an ulcer, is so analogous to that of the lower lid, that nothing need be said in detail on that subject.

Here we must close the first article of our analysis, as our limits do not permit us to do justice to such an important volume, without reserving a portion of its contents for another number of our journal. We have laid before the reader enough already to convince him that, in Mr. Guthrie's work, a great mass of valuable practical information will be found. The talents, the zeal, and the ample experience of the distinguished author ensure any thing from his pen a general and extensive perusal.

X.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING THE

Spirit of the Public Journals,

FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriri oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.

1. *Hooping-Cough—New Discovery.** Dr. Webster of Westminster, has discovered that the seat of hooping-cough is in the *head.* He found, what many others found before, that the pectoral symptoms in this disease "are preceded and *accompanied* by pain of head, and fulness and redness about the temples and eyes." "I have thereby," says he, "been led to entertain the opinion, that the actual seat of the complaint may be in the head." His explanation of the ratio symptomatum is demonstration itself. The hooping-*cough* is only to be considered "an effort of Nature to relieve herself by expanding the lungs to an unusual degree, thereby allowing a greater quantity of blood to flow into them, which may in some degree diminish the fulness and congestion now spoken of." It is odd that Nature has not pursued the same method (by hooping-cough) of relieving apoplexy, and the various other cerebral congestions to which we are liable. Perhaps this hint from Dr. Webster will induce her to follow his very ingenious mode of *emptying* the vessels of the head by reiterated paroxysms of *coughing!*

It is hardly necessary to remark, that Dr. Webster's therapeutics confirmed the truth of his pathology. Leeching the forehead and behind the ears did wonders—especially when assisted by open bowels—calomel and ipecacuanha—squills and antimony, &c.

We knew, long before Dr. Webster's doctrine appeared, that in children who die of hooping-cough, there are generally found congestion and effusion in the head. But so far from supposing these to be the *cause* of the hooping-cough, we deem them to be the *consequences* of obstructed circulation through the lungs, and of the determination kept up to the head by the succussions of the hooping-cough. But, although we look upon Dr. Webster's theory as

* Dr. Webster, Med. and Phys. Journal, December, 1822.

highly fanciful, we by no means object to the practice, as it is calculated to prevent injury in an important organ during the progress of hooping-cough.

2. *Wounded Nerve.** In a former volume of the Medico-Chirurgical Transactions, Mr. Wardrop, who is a very able surgeon of this metropolis, related a case of severe symptoms arising from the prick of a thorn on the point of the finger, where amputation of the finger brought instant and permanent relief. The following case is considerably analogous.

"A young gentleman received a cut with a gun-flint obliquely across the radial side of the distal phalanx of the left thumb. The wound was about two-thirds of an inch in length, and so deep as to divide the digital artery. Though accompanied with an unusual degree of pain, it readily healed by adhesion, and being considered of little importance, no further notice was taken of it. The patient, however, returning to his usual habits, and living rather fully, in a few days the thumb became painful, and the uneasy feelings, accompanied by constitutional irritation, had greatly increased when I first saw him, which was on the tenth day after the accident. No change could then be perceived in the appearance of the thumb, and the cicatrix seemed perfectly natural, notwithstanding he complained of great pain not only in the wounded thumb, but also in the fore finger and radial side of the middle finger, which extended up the arm, and as far as the neck and side. The pain was constant, and when the wounded thumb was even slightly touched, it became excessively severe. The pulse was frequent and tense, the face flushed, and the tongue white and frothy. A very copious general bleeding gave almost immediate relief; the pain in the arm and back decreasing, and the thumb becoming less painful to the touch. For three successive days all the local symptoms recurred, but yielded each time to a repetition of the bleeding, along with copious purging, and a strict antiphlogistic regimen." 206.

The patient continued to have paroxysms at times, which were occasionally excited evidently by mental emotions, or by taking small quantities of animal food. Opiates gave little relief, and nothing seemed essentially useful but strong purgatives, and the most abstemious liquid food.

Three weeks having now elapsed, from the date of the accident; the patient being considerably reduced in flesh and strength; the functions of the digestive organs being much deranged; the paroxysms of pain extending over the whole hand, arm, neck, and even down the back; it became imperative to try some bolder step: Mr. Wardrop therefore, in concurrence with Mr. Cline, made a complete division of the nerve above the injured part by means of a transverse incision close to the second joint. The operation was

* Case of Wounded Nerve of the Thumb, followed by severe symptoms which were relieved by a division of the Nerve. By J. Wardrop, Esq. Surgeon Extraordinary to the King. Med. Chir. Trans. vol. xii.

instantly followed by a complete abatement of all the symptoms; but they were not permanently subdued for several weeks, during which time, whenever the patient took food of difficult digestion—when purgatives did not operate readily—or when the mind was by any means irritated, the pain attacked the hand and arm to a considerable degree. After this, however, his health became quite re-established, and more than two years have now elapsed since the operation. He can take great exercise in hunting and shooting; but what strongly points out the sympathy which an injured part sometimes preserves for a long time with the digestive organs is, that when from any cause the patient's stomach is disordered, he feels a pain in the injured thumb.

Mr. Wardrop's case is followed by some judicious pathological and physiological remarks on injuries of the nerves.

---

3. *Strictured Colon.** Mr. Sterry was called to a gentleman, (ætat. 44) on the 3d February, 1823, who complained of pain in the abdomen about the umbilical region, apparently of a colicky nature, the bowels being confined. Purgatives were given, but did not produce satisfactory effects. He was then bled, and had more aperients, which produced a few scanty motions. On the 10th, the uneasiness in the bowels and the constipation having increased, Dr. Walshman was called in, and more purgatives were prescribed, but without effect. In short, the united skill of Drs. Maton and Walshman, Sir Astley Cooper and others, was unable to give relief to the bowels, and the patient died in great misery after three weeks ineffectual medical treatment.

The following were the appearances on dissection.

"On opening the abdomen, all the intestines, excepting the rectum, were found exceedingly distended with air, insomuch that it was very difficult to cut through the peritonæum without doing injury to the intestines. Wherever the intestines were in contact with each other, red lines, from the adhesive inflammation, marked their disposition to unite. The derangement which produced death was situated at the upper part of the rectum; the sigmoid flexure immediately above it was much distended, and the cœcum enormously enlarged. At the termination of the sigmoid flexure of the colon, and at the beginning of the rectum, a stricture was found completely encircling and obstructing the intestine, which was very much ulcerated. This was the cause, and the *sole* cause, of the impediment to the passage of his motions, and of the fatal issue of the case.

"The inner coat of the intestine was also thickened, and had a carcinomatous appearance.

"No material quantity of the quicksilver was discovered, except in the small intestines, where a small portion was found adhering

---

* Mr. Sterry, Med. Repos. No. 113.

to the inner coat; the whole of the alimentary canal, however, was so loaded with a prodigious quantity of fermented matter, that it would have taken up more time than, under the particular circumstances of the case, was admissible, in order to arrive at any certain conclusion respecting the quantity of that substance, actually contained in the different portions of the intestinal tube."

It seems very strange to us that a *stricture* should have produced such *sudden* effects, and that its existence should not have been indicated months and years before the patient's death. There is something very mysterious in the case.

---

4. *Memoire sur l'Œdème de la Glotte, ou Angine Laryngée Œdemateuse.* Par G. L. Bayle.*

It was our intention to have registered this interesting memoir long ago in our pages, but, till the present time, we have not been able to accomplish our wish. Perhaps it would be prudent, at all times, to direct our attention to the past as well as the present productions of the press—and not to allow the latter to wholly engross our pages. Facts are independent of dates—and therefore it must be desirable to occupy our limits with the best kind of matter, whether foreign or domestic—and whether of the current moment, or a few revolutions of the sun in arrear.

Some sudden and unexpected deaths, the symptoms of which were not alarming, naturally engaged our author to clear up the mystery by *post mortem* examination; and, in several instances, he recognised an occlusion of the larynx by different states of disease, as the cause of the melancholy event. Bonetus, Morgagni, Lieutaud, Vicq. de Azyr, and others, relate many instances of sudden death, determined by various lesions of the larynx; but among those lesions, in the experience of M. Bayle, that which was most frequent, most constantly mortal, and the least noticed, or described by authors, was this œdematous tumefaction of the borders of the glottis. It is a disease which he considers as necessarily mortal, if left to its course; but often remediable by art, if the means be early applied. Although it has never been well described, the description is very easy, because the symptoms are so characteristic and well-marked, that the diagnosis can hardly be mistaken.

He thinks the disease may be properly denominated "*angina laryngea œdematosa,*" because it essentially consists in a serous infiltration of the membrane lining the larynx—the symptoms which it presents being the effect or natural consequence of the infiltration.

The complaint is characterized by a constant tightness or difficulty of breathing, from the œdema of the parts about the glottis, which œdema is not generally accompanied by pyrexia. *The inspiration*

---

* Nouveau Journal de Medecine, &c. Janvier 1819.

is difficult and sibilant, (sifflante,) while the expiration is easy; and in its progress it occasions paroxysms of suffocation, during which the same difference exists between the inspiration and the expiration.

This œdematous laryngitis is a very different disease from that described by Boerhaave under the name of "angina aquosa," because this last affects the palate, tonsils, and pharynx, while the former has its seat in the larynx. The disease of Boerhaave is also far less formidable than the one under consideration.

There are some other diseases, however, which bear some resemblance, in their symptoms, to the *angina œdematosa*—namely, convulsive asthma, angina pectoris, acute laryngeal inflammation, and sometimes aneurism of the aorta. But the practitioner has only to compare accurately the symptoms in the definition with those presented in these last-mentioned diseases, and he will soon see the difference. Thus both in angina pectoris and the convulsive asthma of Millar, the sense of suffocation comes on suddenly, and is referred to the chest rather than to the larynx—neither does the difficulty of breathing continue in the intervals of those diseases. The *laryngitis œdematosa* is to be distinguished from *acute* inflammation of the larynx by the absence of fever in the former, and its presence in the latter. The march of the two diseases is also very different. The "*angina sicca*," mentioned by Areteus, Celsus, Sydenham, Boerhaave, and Van Swieten, is so vaguely described by those authors, that it is difficult to say what it was. Boerhaave, however, asserts, that there is no sign of tumefaction, internal or external, either during life or on dissection. From this it would appear to be a spasmodic affection.

It is now proper to give some detail of the varieties of the angina œdematosa, its causes, progress, effects, and treatment, concluding with individual cases in illustration.

1. *Varieties.* This disease is either primary or consecutive, that is, unpreceded or preceded by any other disease of the parts or neighbourhood. In both cases, however, the progress is the same; and when it is symptomatic, it may occasion death, though the primary affection be cured. In fact, in these complications the angina should be regarded as the principal affection, and it is against it that all our efforts should be directed. When idiopathic, the disease appears to be a catarrhal or inflammatory affection of the larynx—when symptomatic, it sometimes depends on an abscess in the larynx or neighbourhood, sometimes on an ulcer there—and sometimes it is a suite or sequence of other disease, acute or chronic, which determine œdema of the glottis by irritation of the parts.

2. *Causes.* The causes of *symptomatic* œdema anginosa are, of course, as numerous as the various maladies which produce it. In respect to the *idiopathic* species, it more frequently supervenes during convalescence from febrile diseases of a grave character, than under other circumstances. But whether it occurs in this way, or without any preceding indisposition, the *occasional or exciting causes* are not easily appreciated, or well understood. They are, in general, those which determine inflammatory and catarrhal

affections, in individuals predisposed to such complaints. But in what this *predisposition* consists, it is not easy to say.

3. *Progress.* Angina laryngea œdematosa may commence with symptoms of suffocation, accompanied with pain in the region of the larynx; but usually its invasion is less alarming. It declares itself only by an uneasy sensation about the larynx, which the patients endeavour to free themselves of by strong and sonorous expirations to expel supposed mucosities about the throat. They frequently apply their hand to the part; or they complain of a tightness or uneasiness rather than pain there. The voice is somewhat hoarse—there is no fever—and, in other respects, the patient appears well. But in the course of two, three, or four days, the disease augments—the efforts, by hawking, to clear the throat, become more frequent—some glairy mucus is occasionally expelled—the voice gets hoarser, and is sometimes lost—there are momentary difficulties in breathing. Gradually the respiration becomes more noisy and shrill; yet the pulse remains unchanged—the appetite continues—and the patient considers his complaint a trifle. The next symptom, in order of succession, is cough, which is slight at first, and with considerable intervals; but after a few days (in some instances weeks) a new and more alarming symptom is superadded—namely, a sudden sense of suffocation, which lasts five or six minutes, sometimes a quarter of an hour—during which the inspiration is exceedingly difficult, the expiration easy. At the end of the paroxysm the breathing becomes somewhat freer, and an interval of some hours, or even days, succeeds. But the paroxysms recur, and with progressively increased violence, the respiration being less and less free in the intervals, and, attended with more noise, especially when the patient is asleep.

At length the paroxysms of suffocation become violent, and life seems to be in imminent danger. The patients themselves are often affected with such anguish as to attempt their own lives, or request that their throats may be opened to afford them breath. The pulse now becomes irregular and intermittent. In one of these paroxysms, or, more commonly, in one of the intervals, the patient suddenly expires.

Angina œdematosa is almost always mortal. Our author saw seventeen cases of it in the course of six years, and only one of these recovered. The duration of the disease is very uncertain. Some of those, whose cases he noted, died from the third to the fifth day—others lived more than a month, and ultimately fell a victim to the disease, though the early paroxysms were slight, and the intervals considerable. In some instances the first paroxysm proved fatal.

4. *Post-mortem Appearances.* No sanguineous or serous engorgement or extravasation was observable in the brains of those who were examined. The edges (les bords) of the glottis were swelled, thickened, white, and infiltrated with a sero-gelatinous fluid, which could with difficulty be squeezed out by pressure of the fingers through incisions made by the knife. These swelled

and infiltrated edges of the glottis were so disposed that every impulse of air from the mouth closed them, while impulses from the trachea opened them out again. Within the larynx only a slight and uniform œdema of the lining membrane was observable—sometimes a few red spots and injected vessels. Some organic alterations were occasionally observed about the chordæ vocales, the ventricles, or base of the cricoid cartilage. In some subjects there was an abscess in the larynx—in others, there has been found a carious state of the cartilages. The epiglottis is rarely natural—often very much swelled. The lungs are generally a little gorged, but crepitous.

Although the symptoms of angina œdematosa are not clearly described by authors, the effects of the disease are recorded in various writings. Morgagni and Bichat have given descriptions of states of the larynx evidently the result of this malady. It is hardly necessary to remark that death seems to result from lesion of the pulmonary function—that is, from non-oxygenation of the blood, which appears of a dark colour in the vessels of the corpse, and very little coagulated.

5. *Treatment.* Although, in every case where the symptoms were well marked, and the disease completely formed, death was the result; yet our author has observed, in other individuals, symptoms which led him to fear the existence of the malady in an incipient state, but which were dissipated by an active and revulsive treatment. Lænnec has observed similar events. But as, in these fortunate cases, the disease was not fully formed and unequivocally characterized, our author will not be positive that they were really instances of the disease under consideration. He is anxious that the great danger of the disease should be always kept in view, and that the ultimate and most promising remedy (laryngotomy) should not be too long delayed, lest the function of the lungs be so far impaired that this last measure be rendered of no avail.

If the angina œdematosa be determined by, or complicated with, ulceration of the larynx or phthisis pulmonalis, we can only endeavour to soothe the symptoms, for the patient will succumb under the primary disease, even if the œdema could be removed. But in all other cases there may be a chance of recovery, provided the patient's life can be prolonged for a certain time.

The general means of treatment, then, are the following—viz. venesection, unless very strongly contra-indicated—leeches to the neck, anus, &c.—emetics, where the patient appears to have strength to support the measure—large sinapisms and blisters to the neck, arms, and nape of the neck, &c.—antispasmodics, and occasionally diuretics with dilnents. "But as I know (says our author) that these means alone hardly ever succeed, when the disease is unequivocally characterized, and the suffocative paroxysms violent, so I think that laryngotomy should be practised, and that at an early period, lest the function of the lungs be irreparably damaged." But the question will naturally occur—what is this period? Our author answers that, so long as the paroxysms of

suffocation are slight, and at considerable intervals, we should trust to the general means pointed out above; but that it may be laid down as a general rule, that tracheotomy is indispensable whenever one or more violent paroxysms of orthopnea have occurred in a patient whose voice is hoarse or extinct, the inspiration difficult, and expiration easy, with constant and notable tightness (gene) in the breathing during waking and sleep. The urgency of the operation will be in proportion to the degree of this last symptom between the paroxysms, and to the shortness of the interval between the attacks of orthopnea.

6. *Cases.* Our author next proceeds to detail a few histories of individual cases, tending to show that, however different were the states of the larynx giving origin to the œdema of the glottis, the symptoms preserved a surprising uniformity of character. He considers it sufficient to relate a small number of examples, on account of this uniformity, and he has only to observe further, that the majority of the cases which he witnessed of this disease were witnessed also by several other physicians, among whom he cites Lænnec, Fizeau, Nysten, Martin, Clarion, Merat, Cayol, &c. We shall now endeavour to lay before our readers a portrait of these cases.

Case 1. A tailor, aged 25 years, of bilio-sanguine temperament, had been ill eight days when he was received into La Charite, on the 5th Brumaire. His complaint, he said, had commenced with suborbital cephalalgia, bitter taste of mouth, furred tongue, weight in epigastrio, frequency of pulse, and evening exacerbations. The disease pursued the same march after his entry into hospital, increasing, however, in force. In short, it turned out a "putrid bilious fever," as it was then termed, and by the 25th of the same month convalescence was completely established. On the 27th the patient was seized with dry cough, at considerable intervals—the voice was hoarse—and he felt a sense of tightness in the throat. 28th. He got up, but was constantly putting his hand to his throat—voice very hoarse and low. 29th. He had this day, at intervals, an extreme difficulty of breathing, at which times the inspiration was almost intercepted, and very noisy—the expiration free. The patient said he was choaking—his eyes were prominent and wild—his voice almost extinct. This state would continue for ten or twenty minutes, and then an interval of one or two hours of comparative freedom would usher in another attack. The night of the 30th was very distressing, and he was obliged to sit upright for hours together. 30th. The patient was out of bed, and at times appeared in tolerably good health; his appetite continuing, and there being no fever. But the difficulty of breathing progressively increased, and the pulse, which was regular and natural in the calm intervals, became concentrated, somewhat frequent, and at times intermittent, during the paroxysms of dyspnœa. The night of the 30th was very bad, and moments of furious despair were occasioned by the sense of impending suffocation. 1st. *Primaire.* The patient up, as usual, and had some appetite—no fever—respiration exceedingly embarrassed and noisy—glairy expectoration, or rather expuition, from the larynx—little cough—

inspiration very difficult, expiration the reverse—the paroxysms of dyspnœa have shorter intervals, and are more violent in degree. The patient could be heard breathing at a considerable distance. The night of the 1st was less distressing than the preceding. 2d. The appetite still continued—no fever—thorax sounded well in all parts; but the patient was obliged to sit on his bed all the day. Two paroxysms only to-day. At nine in the evening he had a tremendous paroxysm, during which he cried out for a knife to cut his throat! At ten o'clock he appeared more calm, but presently expired. The body preserved its temperature for a long time.

Dissection. Brain sound. On opening the larynx from the pharynx the following appearances presented themselves. The epiglottis somewhat thickened, white, and rather infiltrated towards the edges. The orifice of the glottis somewhat contracted, but still presenting sufficient aperture for the admission of air. The edges or sides of the glottis were thickened, infiltrated, and gellatinous looking—the right edge formed a kind of loose hood or pad, which rose more than three lines higher than the opposite border, and formed a kind of valve, which completely closed the rima glottidis, when laid over it. The interior of the larynx was covered with a glairy mucus in great abundance. The chordæ vocales were swelled and infiltrated, and the ventricles of the larynx were almost effaced. In other respects all was sound and healthy in the trachea and chest, excepting that the lungs were rather tinged with blood, but perfectly crepitous. No mention is made of treatment in any part of the case; and we may fairly suppose that it was not of the most active nature, especially at that period.

Case 2. This was a man, 55 years of age, who had formerly enjoyed good health. On the 12th of July, 1808, and without any known cause, he was suddenly seized, at six o'clock in the morning, with affection of the throat, which threatened suffocation, and during which great noise was made in breathing. In all other respects the man was perfectly well. He had only been ordered some gargles, which had little or no effect. In the course of eight days the respiration became still more difficult—the tightness in the larynx was constant, and at intervals there was a great sense of suffocation, especially in the night. He entered La Charite on the 20th of the month, presenting the symptoms above mentioned—all the functions, excepting respiration, being healthy. From the 20th to the 30th of July the symptoms continued stationary; and leeches were twice applied *to the anus* during that time, *without any benefit.* He was ordered hydromel and juleps with much the same success. On the 1st, 6th, 11th, and 24th August, sinapisms were applied to the larynx. By these the symptoms were mitigated, and on the 24th August he had very little dyspnœa, but the vox rauca remained. He had not had any paroxysm for several days. In the beginning of September the patient found himself so much better that he wished to leave the hospital. He was kept till the 12th, to secure against relapse, and then was discharged.

Whether the above was actually a case of the formidable disease under consideration, must be left to the decision of the reader.

Case 3. Peter Salard, 28 years of age, of bilio-sanguine temperament, had a long illness, which was characterized as a putrid fever at La Charité. He was discharged however, as cured, and continued well for a few days, when he was seized with a new malady on the 4th of Thermidor. He first felt an uneasy sensation in the larynx, the voice becoming hoarse the same day. The inspiration was difficult, the expiration easy. To these symptoms was added a *cough*, though not very frequent—the symptoms themselves becoming more aggravated from day to day. His strength was gradually declining, and on the 10th Thermidor he re-entered the hospital La Charité. He now experienced great pains in the larynx—the inspirations were very difficult, the expirations easy—cough hard and frequent, accompanied with pain in the chest, which, however, sounded well in every part. The patient made frequent efforts to expel something from the throat, and some tenacious expectoration was discharged by these attempts. There was besides a considerable discharge of thin watery fluid from the mouth. The appetite was good, but deglutition was rather difficult. The fauces and tonsils were of a natural colour.

From the 11th till the 15th of the month, the symptoms went on increasing in severity, the emaciation making rapid progress. Yet his appetite was good, and he ate a considerable quantity of food daily, in spite of the difficulty of swallowing. In the evening of this day he went to bed, but was very unwell, and the dyspnœa increasing, he was obliged to get up; his breathing was so loud, that it could be heard all over the ward. About ten o'clock he was seized with a sense of suffocation, and suffered great anguish at times, which threw him into a state of despair and fury. At eleven o'clock these symptoms subsided, and in a few minutes more he expired.

Dissection. The pharynx was sound, and also the œsophagus. The right border of the glottis was found thickened, elongated, and infiltrated, so as to be capable of closing almost entirely the rima glottidis when drawn over the aperture. The lining membrane of the larynx was sound, presenting neither ulceration nor redness. The chordæ vocales were a little thickened and infiltrated. In the posterior parietes of the larynx, that is, between the mucous membrane and that of the pharynx, there was found an abscess, extending from the superior extremity of the arytænoid cartilages to below the middle of the cricoid cartilage. Part of the neighbouring cartilages were carious—the matter of the abscess was thick and white—the trachea and lungs were sound.

Case 4. This case is from the notes of the celebrated Lænnec, and the unfortunate subject was a student in medicine, of a good constitution, and who had previously enjoyed sound health. In the month of January, 1805, he was seized, after excessive fatigue with a violent hæmoptysis, and some days afterward with a putrid and

malignant fever, which lasted 25 days. In the course of this disease he coughed a good deal, and complained of his throat. His convalescence, however, was rapid, and in a few days after the fever ceased, he was able to get out of doors. His strength returned rapidly, his appetite was good. He ventured out on a wet day, and soon afterward his voice became very hoarse, and he felt, at intervals, a difficulty of breathing, attended by noise in the act of inspiration, and some pain in the region of the larynx. Two or three days after this he experienced a severe suffocative paroxysm; and similar paroxysms returned the following days. In the intervals the patient found himself tolerably well, but his voice was extinct. He applied, of his own accord, a blister to the throat, which produced considerable relief. He had good appetite, but felt a choaking sensation, whenever any victuals passed into the œsophagus. About the sixth day from the commencement of the suffocative symptoms, all the phenomena became aggravated—inspiration was now constantly difficult and noisy—yet the appetite continued good. In the course of the following night he had two or three dreadful paroxysms which threatened his life. He sent for Beclard, Fizeau, and Lænnec, who found him in a deplorable condition. He had one or two attacks in their presence. About six in the morning the pulse began to sink and intermit, and the sense of suffocation became dreadful. Dr. Lænnec proposed tracheotomy, considering the disease as œdema of the glottis, of which he had seen several examples under M. Bayle at La Charité. The disease was supposed, from all circumstances, to be idiopathic, and therefore that the operation would afford the patient time for the original malady to subside. A distinguished surgeon was therefore hastily summoned, who agreed with the physicians that a mechanical obstruction to respiration existed at the top of the larynx, for which tracheotomy offered the best means of relief. He made an incision; but the patient cried out that the aperture was not large enough for his breath. The surgeon, then, determined to enlarge the wound upwards, and having introduced a director, he slit open the thyroid (he must first have gone through the cricoid) cartilage. But the suffocation continued nevertheless! The larynx was now examined by means of a sound, but only blood and frothy mucus issued from the orifice. Before the medical attendants could decide on any thing respecting this strange phenomenon, the patient expired, in seven minutes after the operation.

Dissection. The larynx and trachea having been carefully removed from the body, it was found that the first incision had fairly laid open the trachea two lines in extent. It was not so with the larynx. The cartilage had been divided, but not the mucous membrane lining the cavity of this organ. The borders of the glottis were œdematous, and almost entirely closed up the aperture when laid down. Each border presented several lobulated folds of unequal dimensions. The cellular tissue, external to the mucous membrane of the larynx, was also much infiltrated, and the mucous membrane itself participated, in several spots at least, in the same state. The infiltration was particularly remarkable in the ven-

tricles of the larynx, and about the chordæ vocales, from each of which a small tumefied excrescence projected, that obstructed the entrance of air into the lungs, but offered little, if any, impediment to its egress. The inferior part of the larynx was free, excepting that its diameter was somewhat lessened by the turgid state of the lining membrane. In the posterior parietes of the larynx there was a small protuberance, which, when opened, discharged half an ounce of pus. The mucous membrane of the trachea and its ramifications was sound. The lungs were gorged with blood, particularly posteriorly; but otherwise they were crepitous and healthy. There was no other lesion in any part of the body.

There is something obscure, if not mysterious, about the foregoing case. It would appear that the director had passed up between the cartilages and the lining membrane of the larynx, and that when the sound was introduced afterward, the same membrane receded before its point, and led the surgeon into an error in supposing he had freely laid open the cavity of the larynx. But what are we to say to the non-efficiency of the opening into the trachea? Lænnec accounts for it by supposing that the patient's strength was too far exhausted for respiration through the artificial aperture. To this we cannot agree, and for a simple reason—the poor sufferer had strength enough to *cry out that the opening was not large enough.* "L'incision faite au lieu ordinaire, le malade cria d'une voix etouffee: *que l'ouverture n'etait pas assez large.*" To us it appears evident, either that the opening was not large enough to admit air, or that the surgeon made the same mistake in the trachea as he did afterward in the larynx—that he left the mucous membrane undivided. We grant, indeed, that the operation may be so long delayed as to render it inefficacious, however well performed; but, in the present instance, we do maintain that, had the aperture in the trachea been properly made and of sufficient width and length, the patient would have experienced, at least, a temporary relief by free access of air to the lungs.

Case 5. Pierre Bailly, a shoemaker, 45 years of age, of thin and bilious constitution, without any evidence of scrofulous disposition, and having never spit blood, stated that he had been affected with cough for the last five years, but had suffered from no other complaint except an ague, with which he had been harassed in the months of September, October, and November, 1806. During this intermittent (a quotidian) the cough was aggravated, and attended with considerable expectoration of limpid mucus streaked with some white particles. He was at La Charite. The voice had become nearly lost, and complaint was made of pain in the throat, at each side of the thyroid cartilage. This pain was more felt during deglutition and coughing, at which time there was also a sense of uneasiness at the epigastrium. The breathing was become embarrassed—and even difficult, at certain times each day. On the 8th of November the patient experienced, for the first time, a paroxysm of dyspnœa threatening suffocation—and in a few days afterward a repetition of the attack. On the 17th of Novem-

ber the fever of type ceased. On the 18th three paroxysms of dyspnœa, in one of which he fainted, and had some convulsive movements. On examination, the 20th of November, at La Charite, it was noted that the inspirations were long, distressing, and accompanied by a sibilant noise, great distortion of the features, and distention of the alæ nasi. The expiration, on the contrary, was quite free. The breath was fetid—the voice completely lost, and he could only speak in whispers. In the region of the larynx he experienced a sensation of tightness rather than pain; but, in the act of coughing, he suffered pain both in the larynx and epigastrium. The chest sounded well on percussion—the appetite was good, though the tongue was yellow—the stools were easy—the urine natural and abundant. From the 20th November till the 12th December, the symptoms above described continued; and to them was added a diarrhœa. The emaciation now made rapid strides. The patient complained frequently of a sense and fear of suffocation, especially in the night—the cough was very frequent and harassing, and there was evidence of purulent matter in the expectoration. On the 12th December he expired.

Dissection. The aperture of the glottis was not much diminished, but the borders were infiltrated to four times their natural thickness, and when slightly pressed, completely closed the rima. The epiglottis was rather larger than natural. In the interior of the larynx, at the posterior portion of each ventricle, an ulcer was found—deep, and discoloured at bottom. That on the left side would contain a pea, and had destroyed a portion of the superior chorda vocalis, almost the whole base of the arytenoid cartilage, and a part of the cricoid. The ulcer in the right side took a similar direction, but not quite to the same extent. The lungs were tuberculated and infarcted—some of the tubercles being in a state of suppuration. In the large intestines were found two ulcerations of the mucous membrane, with raised and hardened edges, and their surfaces covered with pus. The head presented nothing remarkable.

Case 6. *Aneurism of the Aorta simulating Œdema of the Glottis.* Stephen Pillet, 48 years of age, tall stature and robust constitution, entered La Charité the 29th November, 1808, having been then, according to his own account, six months ill in consequence of suppression of the perspiration. He had cough, and expectoration of glairy mucus, his voice was obscured, and his breathing embarrassed and sonorous. At each inspiration, a kind of hissing noise was produced; the expiration, on the other hand, was free. The patient often felt an uneasy sensation about the larynx—the least exercise increased his dyspnœa, without augmenting, apparently, the action of the heart. The pulse was regular in the left arm, but no pulsation could be felt in the right. The digestive functions were natural, and no emaciation had taken place. For six months before his entrance into hospital, a seton had been established in the back of the neck, which diminished, he imagined, the dyspnœa. This seton had now been dried up. The only measures pursued at

the hospital were diluent aperient drinks, and small doses of a sedative at night. Towards the middle of January, the cough and expectoration were sensibly diminished—the breathing freer and less noisy. The patient walked about the hospital all day, without augmenting the dyspnœa, and he ate with keen appetite. Yet emaciation crept on, though slowly; he had no fever, nor heat of skin—but always complained of tightness and uneasiness about the throat. On the 26th January, Pillet dined as usual, but was seized, soon after, with a violent paroxysm of orthopnœa, being unable to breathe excepting when leaning forward and resting on his arms. He made considerable noise at each inspiration—his face was suffused and purplish. A blister was applied to his throat, and towards midnight the paroxysm declined. Next morning he was in his usual state of health. Towards evening, another paroxysm of dyspnœa, still more violent than the preceding, came on, and did not subside as the former; he expired on the morning of the 28th January.

Dissection. On opening the larynx, to which part his painful sensations were always referred, no vestige of disease was to be seen. The pharynx and neighbouring parts were also in a state of perfect integrity. The lower portion of the trachea was compressed and flattened by an aneurismal tumour, larger than a man's fist, and rising from the root of the aorta. This tumour took a direction backwards, and did not touch the sternum or ribs. It thus compressed, and intimately adhered to, the trachea, occasioning all the phenomena before described, and ultimately death. Where the aneurism compressed the trachea, the cartilages of the latter were absorbed, and there was nothing but the mucous membrane to prevent the irruption of blood from the tumour. This would shortly have taken taken place, for the membrane was beginning to slough. Several specks of ossification were discernible on the inner surface of the aorta both in the thorax and abdomen. The origin of the right subclavian artery was drawn out of this course, in an oblique manner, nearly an inch, by the aneurism; and thus the jet of blood, at each ventricular contraction, was broken, so as to prevent the pulse being perceptible at the wrist. The artery, however, in its course along the arm, seemed undiminished in calibre, and the member itself was equally as well nourished as the corresponding one on the opposite side. The left lung, on whose bronchia the aneurism more especially pressed, was gorged with viscid mucus; the right lung was nearly natural.

We have now finished M. Bayle's Memoir, and hope it is not uninteresting or uninstructive. Some objection might be made to the term œdema, as conveying the idea of a passive infiltration, as in dropsical swellings of the ancles; whereas the œdema here treated of, is evidently a product of inflammation, resembling the gellatinous effusion which we sometimes see under a blister. The term œdema, however, is applied by Sauvages to various kinds of infiltrations, as milky, urinous, and even *purulent;* so that M. Bayle is justifiable in using the word as he has done. We consi-

der the disease here described as nothing more than a subacute inflammation of the glottis or neighbouring parts, requiring the antiphlogistic treatment, and very active counter-irritation. We agree with M. Bayle, that tracheotomy ought to be performed in every case where life is threatened by suffocation, and where there is not evidence of disorganization of the larynx—for in this case there could be no hope of permanent benefit from the operation. Neither should tracheotomy be too long delayed; for the want of decarbonization or oxygenation of the blood may produce such lesion of function in the system as to render bronchotomy of no avail, if performed when the patient is in the jaws of death.

5. *Extirpation of Cancerous Uterus.** Dr. Sauter has published a case of total extirpation of a carcinomatous uterus, where the patient lived four months after the operation.

In October, 1821, Dr. Sauter was consulted by a poor woman, of Constance, aged 50 years, who had borne six children, and who had been, for several months, distressed with a constant menorrhagia. Dr. Sauter found at the cervix uteri a painful excrescence, which bled on the least touch. He tried various remedies without success, and in January, 1822, he proposed the operation of extirpation, to which she readily consented. She was taken to the hospital, and the operation was performed on the 28th of the above month. It was a horrible operation which lasted three quarters of an hour, and during which the bladder was penetrated, and the intestines brought in view! We will not detail the steps of this enterprise, for we do not think it will ever be imitated in this country. The poor woman bore the operation well, and did not lose above a pint and half of blood. The intestines being returned into the abdomen, and the vagina stuffed with charpee, the woman was put to bed, and did not suffer much pain during the first four days, but was troubled with vomitings, and the abdomen became swelled and tender. After this period the functions resumed their natural course, excepting that there was a discharge of urine from the bladder through the wound. On the 42d day the wound was entirely healed, and in three months and a half the woman left the hospital to rejoin her family. In seven days afterward she returned to the hospital with cough, dropsy, and diarrhœa, of which she died, four months and some days after the operation. On examination, the bladder was found still open—the wound of the peritoneum, through which the intestines had descended, was quite whole, and no inflammation or adhesion in the abdomen or pelvis.—*Revue Medicale.*

6. *Painful affection of the Brain.*† There can be no doubt that

* Annali Universali, 1823.
† Dr. Yeats. Journal of Science, April 1823.

the human frame, although subject to the laws of vitality in particular, is yet considerably under the influence of the general laws of inanimate matter. We are burnt by an intense sun, chilled by the easterly blast, relaxed and unnerved by damp weather, braced up by a dry and cold atmosphere. So again, the blood is not only circulated by an apparatus constructed on mechanical principles, but it is influenced in its circuit by the common laws of hydraulics afterward. Who has not experienced the unpleasant gravitation of the fluids towards the head, when that part of the body is kept lower than usual? And who is not acquainted with the beneficial effects of cold applied to the head, and the erect posture in inflammatory and congestive affections of the brain? The case narrated by Dr. Yeats is elucidatory of this principle.

A gentleman, 40 years of age, complained of uneasy, languid sensations in the region of the stomach, with furred tongue, impaired appetite, uneasy digestion, frequent headachs, irregular bowels, unhealthy alvine secretions. The pulse was not affected. He had lost flesh. By proper alteratives and aperients the digestive functions were improved; but the head continued to solicit attention, in consequence of the great uneasiness complained of there. Local detractions of blood frequently repeated, together with a constantly soluble state of the bowels failed to afford relief. The cerebral affection indeed had increased—the pulse became quicker and harder, and the patient described his sensations as follow:—"A pain, with heat, would commence in the back part of it, deep-seated, and would be diffused gradually throughout the whole of the back part of the brain, which would continue sometimes for two hours, causing insufferable distress within the skull, but confined, as it would seem, to the cerebellum, as the crown and fore-part of the head were not affected." A horizontal posture increased his sufferings, and was most acute about three or four o'clock in the morning, after sleeping a few hours. He also felt considerable giddiness and confusion in his head when he stooped upon any occasion. Sir Astley Cooper inserted a seton in his neck—he was confined entirely to vegetable diet—and he was desired to keep *continually* in the erect position, by sitting in a chair, and not going to bed at all. The head was shaved, and kept unremittingly wetted with a cold solution of muriate of ammonia in vinegar and water. This plan produced the most happy effects. At the end of a week he was so much better that the plan was gradually omitted, and he was able to sleep in the horizontal posture, and awake without pain. The seton was withdrawn at the end of two months. The only medicines he took during this time were supertartrate of potash and some purgative medicines.

7. *Cancer of the Lip.** In consequence of reading an account of

* Dr. Bull. Med. Repos. No. 114.

M. Richerand's operation for lip cancer, Dr. Bull, of Cork, was induced to pursue a similar measure in the case of a female, 60 years of age, who had an ulcerated cancer of the under lip of two years standing. It extended from one angle of the mouth to the other, and in depth nearly to the reflection of the mucous membrane from the gums to the lip, presenting a fungous-looking ulcerated surface, much everted, so as nearly to reach the lower margin of the chin when the jaws were closed. Dr. Bull operated in the manner directed by M. Richerand, (Periscope for September 1822,) excepting that he used a scalpel instead of flat scissors. He commenced by an external incision through the integuments, and extending beneath the tumour from one angle of the mouth to the other, in the form of a long crescent. In the next incision the whole of the diseased parts were removed at one stroke of the knife, cutting so low as the frenum of the lip. Lint was applied to the wound, when the arteries were secured; then a compress, and lastly a bandage. On removing the dressings on the third day, suppuration was found to be established; and, on the twelfth day, it was quite healed, not by granulation, "but by a process which, indeed, I did not expect, viz. eversion of the mucous membrane and approximation of it to the skin, with *considerable elevation* also, insomuch that there is hardly any appearance of cicatrization, and a new lip is actually formed, so that when the jaws are closed, the upper lip and the new surface approach each other so nearly, that the loss of parts appears quite inconsiderable." For the few first days the patient could not retain her saliva, but she now possesses that power almost to its full extent."

Our readers will remember that another case corroborative of the above was lately laid before them in this Journal by Mr. Swan of Lincoln.

8. *Epilepsy.** Baron Larrey has published an interesting and instructive memoir on epilepsy, in the July number of our respected Parisian cotemporary the Revue Medicale, into the didactic part of which we are unable to enter, but shall merely abridge from it the following cases.

Case 1. Louis L——, 22 years of age, a grenadier of the exguard, entered the hospital in 1806, having two tumours on the head, in which there was fluctuation, and slight redness of the skin. He was in a soporose condition at the time of his entry, and had been subject to frequent attacks of epilepsy. The tumours being laid open, a caries was observed penetrating both tables of the skull, through which a slight pulsation was perceptible. The sufferings of the patient were somewhat mitigated, and the epileptic paroxysms were less frequent and less violent; but the caries made progress, and a fungous of the dura mater pro-

* Baron Larrey. Revue Medicale, Juillet 1822.

truded, any degree of pressure on which, would, at any time, reproduce epilepsy. The patient died about a month after his entrance into the hospital. On examination of the body, it was evident that he had had chancres; and Baron Larrey has no doubt of the disease being of a syphilitic character. He thinks from experience of other cases, that the fatal catastrophe might have been prevented by a timely exhibition of anti-venereal remedies.*

Case 2. Barthelemi T——, 26 years of age, entered the hospital, for the treatment of two very large and scrofulous-looking tumours on the neck, accompanied by pains in the head, and paroxysms of epilepsy, to which last disease he had been subject, by all accounts, for some years. He stated, that in 1802 he had the venereal disease, and was treated methodically by a regular practitioner. Six years afterward he was wounded in the thigh by a musket-ball in Spain, and experienced both the hospital fever and hospital gangrene. As the wound in the thigh cicatrized, he began to be affected with violent pains in the head, which were relieved by a discharge of purulent matter from the ear. This discharge ceasing, he became deaf—had ringings in the ear—vertigo, and slight epileptic attacks. In this state he was sent to the hospital of the guard, where he was leeched, blistered, and given internal medicines, by which means the above-mentioned symptoms were dissipated. At this epoch an inflammatory swelling appeared in the arm-pit, which was (unfortunately, the Baron observes) discussed, instead of being brought to suppuration. From this time the epileptic paroxysms became extremely violent, and also frequent. The glands of the neck swelled, and some of them broke into abscesses. It was at this period that the patient came under the care of our author. Baron L. suspecting a syphilitic taint in the constitution, prescribed anti-venereal medicines, and applied caustic to the tumours. At the falling off of the eschars the patient experienced a tremendous attack of epilepsy, followed by hemiplegia of the *left* side, and an almost total abolition of his intellectual faculties. In a few days there was a renewal of the epileptic seizures, and the patient was in great danger. A large blister was ordered for the head. On shaving the scalp, a considerable prominence was perceived over the squamous portion of the right temporal bone, and another on the vertex. The blister produced some mitigation of the symptoms, and the patient was ordered diaphoretic drinks, with the use of the hydro-chloric acid, together with camphor and opium in large doses. The pains of the head were mitigated, and the paralysis sensibly diminished. A long perseverance in the acid, blisters, drains from the neck, and suitable regimen, brought about a complete recovery, the patient, however, experiencing many dreadful attacks of epilepsy

* A principal object of Baron Larrey, in this memoir, is to show that a considerable number of epileptic affections arise from syphilitic and other vices of the skull.

during his progress towards a cure. The prominences on the skull entirely disappeared, and the patient was presented at one of the sittings of the École de Medecine, with a cast of his head, such as it appeared on his first entry into hospital. Baron Larrey attributes the principal share of the cure to the internal use of the hydro-chloric acid.

Case 3. Francis P——, 24 years of age, entered the hospital on the 8th of October, 1821, for the cure of epilepsy, the paroxysms of which had become more and more frequent for some months past. Baron Larrey recognised, as the cause of this disease, a thickening (hypertrophy) of the cranium near the vertex, at which part there was a dull pain, especially on pressure. The other signs of cerebral apoplexy, in this case, were also striking, namely, debility of the moral faculties, languid countenance, drooping of the upper eyelids, inclination of the head forward, stupid and taciturn manner. The epileptic attacks had been of long standing, eight or nine years, with intervals, however, of twelve or eighteen months. No blow, fall, wound, or other accident, could be traced as the cause of the disease, unless it was a retropulsion of scabies, which had been cured in three days by a shepherd of his native village. This epileptic being placed in one of the wards for wounded soldiers, was bled from the jugular vein, and had cupping-glasses applied to the temples and sides of the cervical vertebræ. The head was shaved and blistered. Nevertheless he had an attack in a few days. The hydro-chloric acid was now prescribed in a ptisan, with taraxacum, calomel, and aloes, camphor, &c. New blisters and cupping were employed, and an issue was established at the nape of the neck. In the beginning of November two œdematous spots were observed on the crown of the head, to which the caustic potash was applied. On the 16th of November a fresh attack of epilepsy was experienced, but of a very mild kind. In other respects, the condition of the patient, moral and physical, is much meliorated. In fine, by persevering for a long time in keeping drains successively from various parts of the head, the soldier was completely cured of his afflicting malady.

Case 4. This is a curious case in more than one point of view, as will be seen in the sequel. Vallet Baptiste, 35 years of age, a soldier of robust constitution, was admitted into the hospital of Gros Caillou on the 28th of August, 1821, with complete hemiplegia of the right side, caused by a fall which he had a month before on the left side of the head. Headach first resulted from this fall, and to such an extent as compelled him to go into the fever ward, where the usual depletions and derivations relieved the cephalalgia. Hemiplegia next succeeded, and for this he came into the surgical wards under our author. The right eye became affected, the tongue was paralyzed, and the intellectual faculties were impaired.

After an attentive examination of Vallet's head, an unnatural protuberance was observed all over the left and superior portion of the

cranium, and hence it was readily concluded by our author, that the phenomena presented by the patient resulted from the injury done to the cranium, meninges, and probably the brain itself, by the fall. It was therefore determined to attack the disease at its source. The vessels of the head were depleted by local bleedings—the scalp was shaved, and a blister applied all over the left side. In four days some relief was obtained even by these means. But successive blisters, issues, moxas, and various counter-irritants were perseveringly employed, besides a whole polypharmacy of internal remedies. The consequence was that, after one or two slight relapses, Vallet was discharged from the hospital towards the end of December, "*parfaitement guari.*" Our author learnt, however, that this man had soon returned to the fever division of the hospital for febrile cephalalgia, and general bad health, where he died on the 7th February, 1822, seven months from his first coming under Baron Larrey's care for hemiplegia. The Baron had an opportunity of examining his body, and the following appearances presented themselves. The cranium sawed circularly, and carefully raised, showed the left side of this dome much less capacious than the right. The surface of the dura mater, slightly injected, and of a yellowish tint, presented traces of chronic inflammation. The arachnoid was sound. The pia mater was highly injected, and manifestly in a state of inflammation. On raising the brain from the basis cranii, it was observed that the right optic nerve was larger, denser, and redder than the left—that a steatomatous tubercle, in a state of inflammation, encircled the basilary artery opposite the pons varolii, rendering the calibre of the artery at this place narrower than natural. The whole medullary substance of the cerebrum of the left hemisphere, was gorged with blood, and of a firmer consistence than that of the right, which, on the contrary, was nearly of a natural colour and consistence. The left side of the tuber annulare was also denser than the right. On examining the basis cranii they were all struck with the great difference between the two middle fossæ. The right was one half larger than the left.* In respect to the posterior fossæ, on which the lobes of the cerebellum rest, their shallowness excited the astonishment of all present. And this circumstance led our author to examine whether there was any correspondence between the genital organs and cerebellum. The lobes of this last did not appear to be more than one half the usual size of those in people of similar stature with Vallet. The testicles were not larger than a small bean each—and the penis did not admeasure more than six lines in length. This is a very strong fact for the phrenologists—and with this we shall close the present paper.

---

9. (*Retrospective*) *Case of Disease of the Colon, terminating in fatal Disorganization, mistaken, during Life, for Aneurism of the*

* Baron Larrey sent this skull to his friend Soemmering.
† Duchateau. Bull. de la Société Med. d'Em.

Heart.† Dr. Duchateau, after some observations on the fallacy of diagnosis in organic affections, narrates a history, of which the following is a correct sketch; and which cannot be too strongly recommended to the notice of every practitioner.—A man, aged 25, of strong constitution and sanguineo-lymphatic temperament, subject to piles, and having quitted the army for a commercial situation in Paris, exhibited the following symptoms, when first visited by Duchateau:—countenance pale; lips discoloured; unnatural corpulence; chest and shoulders raised; respiration tight; and hoarseness. Exposed to great bodily exertion, he frequently came home, covered with perspiration, and breathless. He ate and drank well. Nothing was done. In March 1808, he was suddenly seized with suffocation, acute and dry cough, violent oppression, bilious vomitings, and syncope. Duchateau found him pale, apparently dying; pulse scarcely perceptible; tongue loaded with a yellow fur. Hence he suspected gastric disorder; but the man, on recovery, complained of intolerable palpitation of the heart, load at the stomach, constriction of the chest, and violent headach. The pulse was full, hard, irregular, particularly in the left arm; epigastrium tense; parietes of the chest elevated by frightful pulsations, and rendering an obscure sound on percussion. On being questioned respecting the palpitation, the patient said, that it first attacked him three years before, without evident cause; had been greatly aggravated of late; but that he had submitted to no treatment; *as his disease had been pronounced by all the physicians whom he had consulted, and particularly by Corvisart, to be aneurism of the heart.*

By the aid of medicine,* the man recovered his former state; but, aware of his situation, would submit to no restrictions. *Corvisart was again consulted, and confirmed his former diagnosis.* Another year passed without alteration, except that, for the last month, the oppression was aggravated; the cough more dry; palpitations more tumultuous; and walking impeded by a sense of painful anxiety about the præcordial region. On February 21st, 1809, after great exertion in cold weather, this man was seized with general uneasiness, convulsion, syncope, and expectoration of florid blood. Copious vomiting of red blood and black coagula ensued: and among the food, accompanying them, were observed some gland-like and fatty substances, compact, and of an ash-white colour, so as to resemble the pulmonary tubercle. They were washed, and preserved in vinegar.

Blood continued to be discharged both by vomiting and stool, and was always accompanied with portions of the substance just described. Convulsive spasm, slight delirium, unaccompanied by severe suffering, weakness and concentration of the pulse, extinc-

---

* The remedies prescribed by Duchateau, were successive applications of leeches to the throat, anus, and thorax; antispasmodics; purgatives, and laxative injections; chicken broth mixed with orange-flower water, and syrup of violets; and lemonade.

tion of the voice, insatiable thirst, and dryness of the tongue preceded death, which took place on the fourth day.

Dissection on the 28th of February. All the *thoracic organs were sound;* as were the stomach, liver, gall-bladder, spleen, and pancreas. On opening the intestinal tube from the pylorus, its duodenal and jejunal portions appeared healthy; but the ileum, for about two feet from its junction with the colon, was livid and gangrenous throughout. The colon itself was distended and blackish; its whole right portion sphacelated, and perforated to the extent of a crown-piece. The membranes were so much altered as to break beneath the finger. The whole adherent portion of mentum, which had escaped destruction, was of a dark-gray colour; the detached part had escaped into the intestines, and had followed the route of the fluids evacuated by stool and vomiting. The intestine, opened throughout, presented internally the same black colour; and the mucous membrane, the want of consistence, consequent on gangrene.

The *Reflections* of Dr. Duchateau we shall pass over, with merely noticing his opinions, that, in this case, part of the omentum had, at first, been the seat of an insidious chronic affection,* and that, contracting adhesions to the ascending colon, it had thus excited passive inflammation of the intestine, until the latter, perforated by the gangrene, had given passage to the portions of omentum, which were subsequently discharged by the mouth and rectum. Lastly, that the palpitations resulted from a lesion of some nervous branches of the mesenteric plexus sympathising with the nerves of the heart.

---

10. *Ulceration of the Cæcum, (private.)* A gentleman of good family attended the King on his tour to Scotland last year, and there received a strain apparently in the right groin, while jumping off a coach. Having also caught a severe cold at this time, he was laid up at Edinburgh with a large swelling in the right inguinal region, for which leeches, fomentations, aperients, &c. were used, and he got about again, so that he went shooting and using much exercise during last winter without any inconvenience. About the middle of May last a swelling appeared in the same place again, and an eminent surgeon of this me-

---

* We have, ourselves, no doubt but that the abdomen was, in this case, the seat of the primary disease, and that the physiological lesion of the heart and lungs was purely sympathetic. Asthma itself is frequently known to originate from epigastric derangement: and in persons of irritable heart, any irritation of the abdominal viscera, or cause accelerating the stream of blood in its transit through the venæ cavæ and lungs, will throw the heart into a state of violent and irregular action, very difficultly distinguishable from organic disease. Hence the practitioner cannot be too circumspect in delivering an opinion on such cases. At this moment, there stands before our window, (in Warwickshire,) a healthy man, whom, many years ago, we gave up, as the victim of active dilatation of the heart, and who was subsequently cured, to our astonishment, by the aloes, spirit of ammonia, and bitters, of a sagacious empiric.—*Rev.*

tropolis was consulted, and considered it to be an abscess forming, from which no danger was to be apprehended. It was opened on Sunday the first of June. On Monday he had a severe rigor, and on Tuesday much fever. On this day bark and other substances he had lately swallowed, were observed on the poultice, which alarmed the patient excessively; but the surgeon did not consider it as of serious consequence, for some days, though the fæces came constantly through the wound. Till Sunday 8th of June, Mr. ——— thought the patient was going on well; but on that day he perceived symptoms which led him to apprehend more mischief than a mere communication with the intestinal canal. A physician was called in; but the patient rapidly sunk, and expired on Tuesday the 10th of June. The following were the minutes of dissection left with the family.

"*Appearances observed on inspecting the Body of S. S——, Esq. June* 11, 1823. In the lower part of the abdomen, immediately above the right groin, there was a cluster of enlarged absorbent glands connected with the abscess. The ulceration, which had taken place in the formation of the abscess had extended into the cæcum, or beginning of the great intestine, in consequence of which there was a large opening, forming a communication between the cæcum and the external wound.

"The inner membrane of the intestine in the neighbourhood of the ulceration, to a considerable extent, was in a state of inflammation, being of a very dark colour, in consequence of the vessels being loaded with blood. There were no other appearances of disease in the abdomen.

"In the chest, the lungs were found unusually turgid with blood; and the surface of the right lung towards the posterior part was covered by a thin layer of coagulated lymph. In the cavity of the pleura, on the right side of the chest, there were about six ounces of serous fluid."

☞ *Qy.* Was there not a hernia in the first instance?—*Rev.*

---

11. *Syphilitic Ulcers of the Larynx.** We remember hearing Mr. Hawkins's paper read and minutely discussed in the Medical Society of Windmill-Street, where it excited considerable attention, on account of the talents of the young author, and the opportunities for observation which he enjoyed at the Lock-Hospital of this metropolis. For these reasons we shall give a fuller analysis of the Essay than we are accustomed to give on similar occasions, as we wish to encourage merit, cherish zeal, and foster the spirit of observation in the rising generation of the profession.

That ulceration of the larynx occurs, and that not seldom, without any syphilitic taint in the constitution, is well known; but it is also proved by experience that venereal ulceration often attacks this

---

* Mr. Cæsar Hawkins. Med. and Phys. Journ. 290-1.

important part, though the disease is very little treated of by systematic writers on syphilis. Mr. Hawkins's observations are confined to those cases which occurred while house-surgeon in the Lock-Hospital, and almost all the cases were accompanied by other venereal symptoms besides those of the throat.

The symptoms of ulceration of the larynx resemble, in a great measure, those of idiopathic inflammation—with this important difference, that, instead of arising in persons of robust health and inflammatory diathesis they generally appear in persons of languid and unhealthy constitutions, or whose health has been broken down by the ravages of syphilis or the inordinate exhibition of its antidote. There are three kinds of ulcer in the throat, that are prone to affect the larynx. One is very rapid in its progress, and acute in its form—the second, or most common, often takes some weeks, or a still longer period before it arrives at any formidable height—the third, or least common, may be called the painful sloughing ulcer. In the first stages of these ulcers they are confined to the fauces—in the second stage they extend to the larynx—and if not fatal in one of these stages, they implicate the trachea or lungs, and terminate the sufferings of the patient.

"The first description of ulcer in the throat, which is apt to spread to the larynx, begins in the tonsils, in which a deep ulcer will be seen, containing a thick black slough, which so rapidly extends, that it deserves the name of the acute sloughing ulcer. The black sloughs do not separate and successively form, as is sometimes the case in the other species, but portions of the sound parts become every successive day involved in the slough, which hangs by shreds from the palate and pharynx; the secretion of saliva being very much increased. The countenance is, almost from the beginning, bloated, and of a dark venous hue, before the symptoms of ulcerated larynx begin, and consequently before the blue colour can arise from any obstruction in the larynx itself. It rather appears to originate in the excessive languor of the circulation; a debility which it is impossible to remove, and which is such that the act of respiration itself appears to be too great a labour for the muscles to sustain. The slow passage of the blood through the lungs produces a copious secretion of mucus from the air-cells, which threatens to put an entire stop to the circulation. If the epiglottis and arytænoid cartilages become affected, the destruction of the patient is inevitable. The throat is so excessively irritable that not the slightest stimulus can be borne. The cells of the mucous membrane become gorged with serum, and fill up the aperture of the glottis; the parts having very much the appearance of an erysipelatous affection, to which disease this kind of ulceration really bears considerable resemblance, both in its progress and termination. Death may sometimes occur without the acute symptoms of ulcerated glottis, so that the patient may sink gradually till with the last few minutes.

"The second, or chronic ulcer, occurs chiefly in persons who have used mercury for this or some other form of the venereal disease; so that, perhaps, some doubts may be felt as to the origin of

this species, even by those who grant the syphilitic nature of the acute kind. But, as few persons have suspicious symptoms of any severity without having taken mercury in some stage of their progress, except in situations where they are completely under the controul of their medical attendants during the whole progress of the disease, the same doubts might be felt with regard to almost every other symptom of the venereal disease, particularly those usually called syphiloid or cachectic, if they had not each of them occasionally been observed after primary sores, for which no mercury had been exhibited. These observations particularly apply to the lower orders in the metropolis. It is not, however, of material importance to attach a name to the ulcer, as the employment of mercury is, in general, wholly inadmissible.

"This ulcer consists of a slough of a yellowish-brown colour, beginning generally in the pharynx, just behind the posterior arch of the palate, or else immediately behind the tonsil, on one or both sides. The slough is smooth and uniform in its appearance; it is not very deep, and the edges are on the same level with the surrounding soft parts. If it is on the increase, the immediate edge of the sound part has an irritable appearance, with a mixture of red and yellow streaks or spots, the red lines being gradually lost, so as to enlarge the size of the slough, without any apparent breach of continuity between the slough and the healthy pharynx. The local symptoms attending this ulcer in the pharynx are very frequently of an extremely mild nature, so that the whole pharynx may be covered with dark yellow sloughs, while the patient complains of little more than an uncomfortable sensation in swallowing, not actually amounting to pain; for, in fact, the ulceration itself is not the cause of pain, so much as the contact of the food with the ulcerated surface, which cannot take place till the healing process has begun, and the separation of the sloughs has commenced. But, in general, although the patient himself does not suffer very much, his system sympathizes with the extensive destruction which has ensued: the countenance is that of general ill health, with an exceedingly quick, weak, and irritable pulse, loss of appetite, broken unquiet sleep, and very great emaciation and debility.

"The last kind of ulcer which I shall describe is preceded, for two or three weeks before the appearance of any ulceration, by most excruciating pain, generally situated in the posterior part of the pharynx about the centre; the redness and other inflammatory appearances being very slight, but the difficulty in swallowing so very great that the patient's strength can scarcely be supported. At last a deep circular ulcer is perceived, which rapidly destroys the muscular part of the pharynx by sloughing, resembling the acute ulcer in appearance, and in being unaccompanied with any suppuration, but with more dryness of the mouth, and a fever, more of the inflammatory than of the typhoid character. In one case the acute pain was followed by the appearance of several little ulcers, which very quickly spread into each other. I have not had an opportunity of observing this last kind of ulcer,

except in its first stage: I have been informed, however, on authority which I cannot doubt, that it is liable to extend to the larynx, though not so frequently as the other two which I have described." 276.

Allowing for some slight differences, the symptoms of the second stage of all these ulcers are so nearly alike that one description will suffice.

"With such symptoms as those which have been enumerated, the ulceration gradually proceeds till the epiglottis and arytænoid cartilages become involved in the disease. It is, however, somewhat remarkable, that the severity of the symptoms does not gradually increase in proportion to the extent of the ulcer, but continues of nearly the same degree of violence till the larynx is ulcerated; and then a fresh series of symptoms suddenly appear, constituting what I have called the second stage of the disease. For instance, a woman had extensive ulcers in the throat, which resisted every mode of treatment for many months. Nothing could rouse her constitution from the excessive langour into which it had sunk: but suddenly some accidental cause such as a crumb of bread having fallen into the glottis, which had probably been some time diseased, caused a fresh activity in the ulcer, and gave rise to a new set of symptoms, which were fatal in a few days.

"At this period the voice loses its sonorousness, so that it becomes little more than a whisper, each attempt to converse producing a suffocating cough. Each act of inspiration is attended with a peculiar rattling noise, (different, however, from that of croup,) while that of expiration is comparatively easy. The muscles of the larynx and os hyoides are in constant and violent action, so that the larynx cannot be held steady for an instant; and at every inspiration the head is elevated, as if to give greater freedom to the entrance of the air, by straightening the tube through which it has to pass. If the difficulty of breathing be very great, the arms are tossed about in rapid and unceasing motion; while the eyes are fixed and projecting, or drawn up under the upper eye-lid, so as to hide the pupil. The sleep is sparing, and broken by starts, with the dread of impending suffocation. The countenance is generally pale, and expressive of the greatest anxiety; the face being covered with a greasy secretion, or bathed in profuse perspiration. The pulse is rapid in the extreme, so as scarcely to be counted; it is weak and excessively irritable; while the whole nervous system appears to be sunk in the depth of languor and debility.

"If the disease is accompanied with inflammation of the chest, the state of the pulse is liable to be affected. In one case, where there were repeated attacks of inflammation, the pulse, although weak in general, had the peculiar wiry feel of active inflammatory action; and in another, it was even full and hard. Such a combination of disease is particularly dangerous, as the treatment necessary for one may be improper for the other affection.

"But the most marked symptoms are those which affect the larynx itself. These are excessive pain and tenderness of the

larynx, not general, but most commonly so far circumscribed that it is possible to distinguish whether the thyroid or cricoid cartilage is affected, and even which side of each individual cartilage: indeed, it is sometimes possible to cover with the point of the finger the spot which is the seat of the ulceration, as I have ascertained by dissection. When solid food is swallowed, it produces some degree of pain, but inferior to that of an acute inflammation of the pharynx, and in general is swallowed without material uneasiness; but the attempt to swallow fluids is invariably followed by acute pain and severe cough, arising, no doubt, from the insufficient closure of the glottis, in consequence of the morbid state of the muscles which regulate its actions; the irritation not being material from the deglutition of a solid morsel. Mr. SHAW, however, has recorded a case of ulcerated larynx, in which there was so much difficulty of swallowing that it was treated as a stricture of the œsophagus, till the employment of an opiate proved the difficulty to have been mere spasmodic. I have heard the difficulty of deglutition remarked as a distinction between ulceration of the larynx below the glottis, and an ulcer involving also the parts above the chordæ vocales,—that the difficulty exists in the latter case, but is not present in the former. That the difficulty of swallowing is greater where the pharynx is ulcerated, must be evident; and perhaps there may be none where the ulcer is below the glottis. The circumstance, however, to which I would attach importance, is not a difficulty of deglutition, but the fact of a few drops of fluid almost always entering and irritating the glottis; the rest of the liquid being swallowed without any effort. The fluid enters the glottis in cases where the epiglottis is entire, and persons have been known to swallow with tolerable ease after it has been destroyed; facts which might be expected from the experiments of Majendie, and which prove that it is the affection of the muscles which produce the irregular deglutition, and not the loss of the mechanical assistance of the epiglottis." 278.

These are the prominent symptoms—they are constant—but vary in intensity—their severity being by no means proportionate to the extent of the ulceration in different individuals.

Partial ossifications of the larynx sometimes take place so long after the preceding ulceration of the upper part of the throat, that it is doubtful whether it is an effect of the ulceration or a specific disease of itself.

"I have only happened to see two cases of this nature, though I have been informed of several others. In one, the greater part of the cricoid cartilage was changed into bone, some of which lay loose and carious in an ulcer of considerable extent. In the other, a man who died in St. George's Hospital, there was an abscess in the left side of the thyroid cartilage, very near the sacculus laryngis, containing several pieces of exfoliated bone." 278.

The symptoms, in these cases, are nearly the same as in common laryngeal ulceration, except the hoarse raucous voice. Between the symptoms, too, of ulcerated larynx and cynanche laryngea there is such considerable similarity, that some diagnos-

tic characteristics become necessary. Although the ulcer may be out of sight, manual examination will sometimes discover it. If the finger is pressed firmly on the tongue, so as to avoid titillation, it may be passed round the epiglottis, and borne a sufficient time to ascertain the existence of ulceration, by the roughness or other deviation from the natural surface of the part. There are also some differences when the ulcer is below the rima glottidis. In cynanche, there is not the circumscribed tenderness of ulceration; there is much more pain in the deglutition of solid substances; and the swallowing fluids does not excite the peculiar action of the muscles of the glottis, or not in the same degree; there is also a difference in the voice.

"But one of the chief diagnostic marks between ulceration and simple inflammation of the larynx, is perceptible in the state of the circulation. The pulse in the latter, as in almost all acute inflammations, is full and hard; the countenance flushed, and the eyes suffused with blood; 'febris acuta et fere ardens, facies florida, deinde livescens.' The change of colour does not begin till quite the last stage of a very acute disorder rapidly coming to a crisis; the reverse of all these circumstances generally obtaining in ulceration of the glottis." 279.

Ulcers in the larynx vary in size from that of a split bean or almond to the diameter of an inch or more. The side of the arytænoid cartilage appears to be their principal seat—the epiglottis, however, is sometimes alone affected, and the largest ulcer Mr. H. has seen was situated in the posterior part of the cricoid cartilage and sides of the thyroid. The epiglottis is sometimes wasted, or even completely destroyed. The ulcer, in general, has a ragged irregular surface, the deeper parts being thickened so as, in some measure, to supply the loss of substance occasioned by the ulceration.

The third stage of laryngeal ulceration is where the lungs and trachea become affected. The difficulty of respiration produces such congestion in the lungs, that much watery and frothy fluid is poured out, and the blood is prevented from undergoing the proper changes. Sudden death, under these circumstances, is not uncommon. But by far the most common sequel of laryngeal ulceration is tubercular phthisis, which often terminates fatally in a very rapid manner.

Symptoms, however, of pulmonary consumption are occasionally produced by laryngeal ulceration, the lungs being perfectly sound. This has been denominated phthisis laryngea—the patient being worn out by long-continued cough and purulent expectoration. The ulceration, in such cases, sometimes extends down the trachea, and even into the bifurcations of the bronchia, the whole of the mucous membrane being irregularly studded with honeycomb-looking ulcers.

"It is asserted by some persons that it is most difficult, or altogether impossible, to distinguish between phthisis pulmonalis and phthisis laryngea. The cough, the purulent discharge, the emaciation, the hectic, are, it is true, common to both diseases; but still, I think, there are some marks by which they may be known. These

are to be found in the peculiar form of the chest of consumptive persons; in the extent to which the patient has the power of expanding his lungs, which is almost always limited by the alteration of their structure, which takes place in phthisis pulmonalis; in the sound emitted from the chest by percussion, the change of tone being commonly perceptible by simple tapping with the fingers, even without the assistance of the stethoscope, to which so much importance is at present attached. Add to which the fact, that tapping the ribs gently will almost always excite coughing in persons whose lungs are unhealthy, while sound lungs will scarcely be affected by it." 362.

It is of the last importance to distinguish ulceration of the larynx from cynanche laryngea, between which diseases there is considerable similarity of symptoms, since the treatment of the latter will not avail in the former.

"The *acute sloughing ulcer*, which was first described, is of such a nature that it will often be fatal under the most judicious treatment. The depression of the whole system is so excessive, that the most powerful stimuli may fail to rouse the constitution; and, although they seem to be the only means to which we can have recourse, their exhibition requires perhaps considerable caution and judgment; for the inflammation of the throat itself is very high, while the general system is in the lowest state of debility; and there is so much local irritability, that the passage of medicine and food may of itself be sufficient to increase the rapidity of the sloughing.

"The best method, therefore, appears to be, to endeavour to soothe the parts, (for which purpose the steam from hemlock-leaves will often be found effectual,) while we support the system rather by nutritious diet than by strong cordials. Ammonia is of great service in such cases, and it may be given at the same time with sarsaparilla; which latter medicine is, perhaps, one of the most powerful means we possess for the support of the strength, independent of any antisyphilitic virtues which it may boast of. The best form in which we can exhibit it with this intention, is perhaps the syrup, which can be made of greater strength than the usual preparations, and acts more speedily upon the constitution; nor, perhaps, are the highly nutritious qualities of the sugar to be lost sight of. Its chief fault is a liability to offend the stomach; the tendency to which will, however, generally be counteracted by the addition of a little tincture of ginger, or some other aromatic. After the desired effect has been obtained, and the violence of the disease checked, some other form of the medicine, or some tonic, may be substituted for the syrup of sarsaparilla." 363.

In respect to the second species, the chronic sloughing ulcer of the throat, there are few diseases, so formidable in appearance, which are so completely under the control of medicine. As an illustration of this remark, our author mentions the case of a person who had an ulcer of this description, that had destroyed the tonsils, uvula, and part of the soft palate, occupying the whole back and sides of the pharynx, as high up the nares as could be seen. He had become greatly emaciated during the three preceding months, with an irritable pulse at 140, nocturnal sweats, and great prostration of strength.

He took a pint of the Lisbon diet drink, and fumigated his throat twice a day with the red sulphuret of mercury. In ten days his pulse had sunk to 70, and had become quite soft and regular. His throat was nearly cicatrized, and he had already gained flesh considerably. No internal medicine, our author observes, can be employed with so much advantage as the sarsaparilla.

Our author has seen too little of the "*painful ulcer*" to recommend any thing with confidence from his own experience. Two cases of which he heard were cured by mercury, even although the disease had, in one of them, extended to the glottis. There are so few sloughing sores, however, with which mercury will agree, that the utmost caution is necessary in exhibiting it. Our author would rather be inclined to trust to large doses of opium, and at least delay the exhibition of the mercury till the excessive pain was relieved.

"Many persons have doubted the possibility of our effecting a cure, if the ulceration has once extended to the larynx itself. This opinion appears to me, however, to be erroneous; as, in one or two instances which I have examined, I have seen what had all the appearances of cicatrices from former ulcerations. This was particularly observable in the larynx of a woman who had all the usual symptoms of ulcerated larynx in a severe degree, and was discharged cured. She continued well for several months, and was then re-admitted into the Lock Hospital, with a return of the symptoms, accompanied with phthisis pulmonalis; of which she died. An ulcer was seen in one side of the glottis, with a ragged depression in another part of the larynx, which was probably the remains of the previous attack. Judging from their resemblance in feeling to some fatal cases, where dissection had verified the observation previously made with the finger, I believe that I have felt ulceration of the epiglottis and sides of the chordæ vocales, in persons who have been afterward cured. In one very remarkable case, after the symptoms of ulcerated larynx had subsided, the cicatrix seemed to have so far contracted as nearly to close the glottis, producing very great difficulty of breathing, with a noise evidently showing the small size of the tube through which the air had to pass. The greatest relief was obtained by the occurrence of fresh ulceration in the lower part of the pharynx, which appeared to have in some measure reopened the cicatrix of the former ulceration." 364.

There are two objects at which we ought to aim in the management of ulcerated glottis—the first, to relieve the excessive irritation—and next to heal the ulcer.

"Several plans may be tried in order to gain the first object; such as inhaling the vapour of a strong infusion of conium or opium, or of nitric acid diluted with warm water. If the ulcer can be touched with the finger, the solution of lunar caustic may be applied, in the manner recommended by Mr. Charles Bell, which appears to perform the same part here that it does in severe cases of spasmodic stricture of the urethra. It does not act as an escharotic, but simply diminishes the nervous irritability on which the contraction of the muscles depends. On the whole, however, I believe that fumigations of cinnabar are by far the most powerful means we possess of

effecting this purpose. Very great relief is often experienced from the first time this plan is resorted to. Half-a-drachm or a drachm of the red sulphuret of mercury may be used once or twice a-day, according to the facility with which it is borne, or the benefit that is derived from it. The mercurial fumigation is not employed with a view to its specific action upon the system, for its effects are equally obvious when the constitution is not at all affected by it, as when the gums are made sore by its employment: salivation, indeed, to any great degree, would be disadvantageous, and perhaps dangerous. The action of the cinnabar rather appears to be local, though it would perhaps be difficult to explain exactly the manner in which it acts.

"It must be obvious that the use of the two latter remedies are chiefly applicable to those ulcers which follow the chronic ulcer of the throat; and that the soothing plan is most appropriate in the more acute and inflammatory species, while the violent local action exists." 365.

As a few hours are often of consequence, we may call in the aid of leeches and blisters to the throat—or even general bleeding, should circumstances require it. And having checked the most urgent symptoms we are then to act on the ulcer by the sarsaparilla, or bark in large quantities, or ammonia, which is very useful in some cases.

We have now given a full account of Mr. Hawkins' valuable Essay, and we hope we shall often have occasion to notice productions from the same pen.

---

12. *Ancient Facts better than Ancient Fictions.* At page 222 of our last number we introduced a short *retrospective* notice of a practice pursued by Dr. Akenside, more than 60 years ago, in that Opprobrium Medicorum, cancer. On this notice the sagacious editor, of the MEDICAL INTELLIGENCER, (June, 1823) makes the following reflection, with a note of admiration at the end. "What an extensive store of articles of intelligence would there accrue to any editor of a journal who might choose to fill up his pages from the various cases contained in the transactions of societies—*provided he were to hold novelty and importance of no value!*"

Now we appeal to the comparatively few who are in possession of the *fasti* of the profession, whether an "extensive store," of both valuable and important facts might not be collected from these sources, and which would be completely novel to ninety-nine in the hundred of medical society. But if the MEDICAL INTELLIGENCER means to insinuate, that this could be done with as little labour as swallowing down the mass of inanities and vanities which daily issue from the presses of London, Paris, and Vienna, we beg leave to differ from him. Nothing in fact, but the labour and time necessary for such retrospections, prevents us from more frequently pursuing them. But now for "novelty and importance." In the very same number of the INTELLIGENCER which contains this sneer at bringing up a *fact* of 60 years standing, the editor of the Intelligencer, with singular inconsistency, tries back 200 years, and with much labour brings up a *fiction*. When Prosper Alpinus returned

from his travels in the East, he entertained his friends in the West with some marvellous sights which he had witnessed on the road. —Among others, the exploits of a certain Arab Charlatan, named HALY, who played off some notable *slight-of-hand* tricks on the credulous of those days.* This Haly, in order to extract calculi from the bladder, without any cutting instrument, took a wooden cannula or tube, *eight inches in length, and one in diameter*, which he applied to the urethra, (quam colis canali admovebat) and blowing lustily (fortiterque insufflabat) puffed up the canal to the proper size, taking care, however, that the air should not enter the bladder, by pressing with his finger as far back as he could in the perineum—*consequently preventing any dilatation of the urethra between his finger and the bladder.* All that he had now to do was, to put a finger into the patient's rectum, and push the calculus quietly and easily through the neck of the bladder, and down along the urethra to that part which was previously dilated, when, of course, the extraction was performed without difficulty!! To any man, in the slightest degree acquainted with the anatomy of the parts, it would be an insult to say that the whole story is a fiction, being an anatomical impossibility. No man on earth could, by means of a finger in the rectum, push a calculus through the neck of the bladder, and down into the bulb of the urethra, where Haly's other finger was placed, to prevent air getting into the bladder. The whole was a juggling trick of Haly the Arab, whose impudence was only equalled by the credulity of Prosper Alpinus and the Medical Intelligencer.

When the subject of Sir Astley Cooper's forceps was under discussion at the Medico-Chirurgical Society, last winter, this passage of Prosper Alpinus was alluded to by one of the gentlemen present. The editor of this Review had the leaf containing the extract in his pocket, and it was only necessary to read the entire passage to the Society, to excite one universal burst of laughter at the Munchausen story of Prosper Alpinus. Even the gentleman who quoted Alpinus did not attempt to defend him, but acknowledged that the operation was on a par with the cures of Prince Hoehenloe. So much for the "novelty and importance" of the *retrospections* in the MEDICAL INTELLIGENCER.

"* Eo tempore 'inquit' quo ego in Ægypto moram faciebam, Arabs quidam Haly vocatus ad extrahendos lapides sine incisione celeberrimus erat, quem ego sane cuidam duci Turcarum, Horam Bei vocato, multos lapides extraxisse vidi. Quo in opere absolvendo ille *ligneam cannulam* accipiebat, *longitudine octo digitorum*, et *latitudine digiti pollicis*. Quam colis canali admovebat, fortiterque insufflabat, atque ne flatus ad interiora perveniret, *altera manu extremum pudendi perstringebat*, foramen deinde cannulæ claudebat, ut virgam canalis intumesceret, et latior fieret, ac appareret. Quo facto minister digito in ano posito, lapidem paulatim ad canalem virgæ, atque in ejus extremum deducebat. Qui ubi præputio lapidem approquasse sentiebat, cannulam a virgæ canali fortiter impetioque amovebat, ut magna dexteritate lapis ad nuclei olivæ magnitudinem fuerit extractus: et ego interfui huic duci Turcarum, et postea duobus item Judæis, quorum alter puer erat, cui octo lapillos extraxit, et alter adultis, cui extraxit lapidem ad magnæ olivæ magnitudinem. Hic que est extrahendi lapidem e vesicâ modus, quo utebatur ille medicus Arabs."—INTELLIGENCER, JUNE, 1823.

XI.

BIBLIOGRAPHICAL RECORD;

OR,

Books received for Review since the last Quarter.

1. A Treatise on Materia Medica and Therapeutics. By JOHN EBERLE, M.D. Editor of the American Medical Recorder, &c. &c. Two volumes, 8vo. pp. 440 and pp. 537. Philadelphia, 1822.

---

2. Enchiridion:—or, a Hand for the One-handed. By GEORGE WEBB DERENZY, Captain, H.P. 82d Regiment. Octavo, pp. 60, with numerous woodcuts. London, 1823, price 5s. boards.

☞ *To the thousands who are subjected by the chance of war, the hazards of machinery, the effect of accidents, disease, or malformation, to a loss of manual power on one side, Captain Derenzy's apparatus will prove an invaluable convenience and comfort, as well as a source of independence. No man who is maimed in the manner in question should hesitate to convince himself, by an inspection of the apparatus or a perusal of the work, whether or not we have over-estimated its advantages. The whole of the items amount only to* 10*l. and any of them may be got separately.*

---

3. The American Medical Recorder of original Papers and Intelligence in Medicine and Surgery, No. 21. Philadelphia, January, 1823.

---

4. De la Douleur, considerée sous le Point de Vue de son Utilité en Medecine, et dans ses Rapports avec la Physiologie, l'Hygiéne, la Pathologie, et la Therapeutique. Par JACQ. ALEX. SALGUES, D.M. &c. 8vo., pp. 128. Paris, 1823.

---

5. An Essay on the baleful Influence of so frequently Washing Decks in His Majesty's Ships, on the Health of British Seamen: with Observations on the Prevention of Dry Rot in the Royal Navy. By ROBERT FINLAYSON, M.D. Member of the Royal College of Surgeons of London, and Surgeon in the Royal Navy. Octavo, pp. 85, with a Plate. London, 1823.

☞ *This little Essay is written with great spirit and intelligence. Although we are not disposed to go the whole length with Dr. Finlayson, respecting the baleful influence of moisture on the health of seamen, yet we are convinced that if the executive officers of ships were to hearken to Dr. F's instructions on very many points, the men under their charge would experience an increase of comfort and a diminution of sickness.*

---

6. An Outline of Hints for the Political Organization and Moral Training of the Human Race: submitted, with deference, to the consideration of those who frame Laws for the Civil Government of Man, and more especially for those who direct, or profess to direct, Man to the true Worship of the Deity. By ROBERT JACKSON, M.D. Octavo, pp. 253. Price 9s. boards. London, July, 1823.

☞ *The second chapter of this work contains the "Outline of a Plan of National Medical Establishment," which will, of course, deserve the attention of the profession. Any thing from the pen of Dr. Jackson ensures respect. We hope, in our next, to give some account of the Work.*

---

7. Sketches in Bedlam, or characteristic Traits of Insanity, as displayed in the Cases of 140 Patients of both Sexes, now, or recently, confined in New-Bethlem, including Margaret Nicholson, James Hatfield, Patrick Walsh, Bannister Truelock, and many other extraordinary Maniacs, who have been transferred from Old Bethlem. To which are added, a succinct History of the Establishment, its Rules, Regulations, Forms of Admission, Treatment of Patients, &c. By a CONSTANT OBSERVER. Octavo, pp. 312. 1823.

☞ *The above work contains many curious particulars of insane persons, which are far from uninteresting to the profession. We shall, therefore, dedicate an article to this subject in our next number.*

---

8. A Treatise on Mental derangement. Containing the Substance of the Gulstonian Lectures for May, 1822. By FRANCIS WILLIS, M.D. Fellow of the Royal College of Physicians. Octavo, pp. 234. London. Longman and Co. 1823.

---

9. American Medical Recorder, No. 22, for April, 1823. In exchange for Medico-Chirurgical Review.

---

10. The Philadelphia Journal of the Medical and Physical Sciences, No. 11, May, 1823. In exchange for Medico-Chirurgical Review.

---

11. Transactions of the Associated Apothecaries and Surgeon-Apothecaries. Vol. I. Burgess and Hill, Sept. 1, 1823.

☞ *A copious review of this stranger in our next number.*

---

12. Lectures on the Operative Surgery of the Eye; being the Substance of that Part of the Course of Lectures on the Principles and Practice of Surgery which relates to the Diseases of that Organ; published for the Purpose of assisting in bringing the Management of these Complaints within the Principles which regulate the Practice of Surgery in general. By G. J. GUTHRIE, Deputy Inspector of Hospitals, &c. &c. Octavo, pp. 514. London, August, 1823.

---

13. Prison Labour, &c. Correspondence and Communications addressed to His Majesty's Principal Secretary of State for the Home Department, concerning the Introduction of Tread-Mills into Prisons, with other Matters connected with the Subject of Prison Discipline. By Sir JOHN COX HIPPESLEY, Bart. Bencher of the Inner Temple, (transmitted by the Author.) Octavo, pp. 228. London, August, 1823.

☞ *We beg to return the worthy and able Baronet our thanks for the present of his interesting work on a curious and highly interesting subject—the employment of culprits. We shall take an early opportunity of examining the Work with care, as we see it embraces a question of Physiology of Hygiene, which falls properly in our line of study.*

---

14. The Life of William Hey, Esq. F.R.S. &c. &c. &c. By JOHN PEARSON, F.R.S. F.L.S. M.R.I.A. In two volumes, 8vo. *Second Edit.* 1823.

XII.

INTELLIGENCE.

Annual Report of the General Committee of the Associated Apothecaries and Surgeon Apothecaries of England and Wales, received and adopted at the Annual General Meeting of the Association held by Public Advertisement, at the Crown and Anchor Tavern, Strand, July 2d, 1823.

JOSEPH HAYES, Esq. *President.*

YOUR Committee, in compliance with annual custom, submit to the Association, the result of their proceedings since the last General Meeting.

The meetings of the Committee have been regularly held, although there has been but little business to transact, and that little of no particular interest or urgency.

The Committee have not, however, been indifferent to the objects for which the Association was formed, and in the first volume of Transactions, now nearly completed, although necessarily partaking of the imperfections incident to the commencement of a new undertaking, they trust will be found an earnest of the zeal which they entertain for the welfare of the Medical Profession, and of their sincere desire to render the exertions of its members subservient to the public good, and the best interests of humanity.

Viewing, as they do, with satisfaction, the success which has so far attended the exertions of this Association, in the improved state of medical education, particularly in that of the general practitioner, they still hope to witness further benefits, which cannot ultimately be otherwise than reciprocal between the profession and the public.

Well aware of the difficulties which attended the passing of the Apothecaries' Act, and of the opposing obstacles which prevented the fulfilment of the laudable wishes of the Association, with which it originated, and of the profession at large, in rendering it fully adequate to its proposed end, the Committee still cherish the hope of obtaining further improvements through the medium of the legislature, which, whilst they may afford the necessary protection of the various members of the profession, shall be founded on a more dignified and extensive basis—the public good.

They therefore, abstain in the present instance, from any other than general allusion to the imperfections of the existing state of the Medical Profession, and of the legislative provisions relative to it, or the means required to effect the necessary meliorations. The work of improvement is slow and laborious, but when attempted with zeal, and carried on with perseverance, and with a purity of motive, which the end desired must show to be above suspicion, it cannot be otherwise than progressive.

They who now labour to place the practice of medicine upon a footing more consistent with its real dignity and usefulness, can scarcely expect personally to reap any benefit, unless the consciousness of having strenuously exerted themselves to effect the diminution of human suffering can be supposed to bear such an interpretation.

As an accurate knowledge of the present state of the medical profession can be the only ground-work of any rational attempt to effect improvement, the Committee beg leave to recommend to the Association that it be therefore an instruction to the future Committee—

1. To ascertain, as far as may be practicable, the actual condition of the Medical Profession, and the obstacles which have hitherto impeded its advancement.

2. To examine and to arrange the imperfections to which its present condition is liable, showing the particulars in which the public and members of the profession are injured or aggrieved.

3. To point out the remedies for the evils complained of.
4. To use such means, as may to them seem proper, to effect (whether by application to the legislature, or by other legal means) the meliorations to be desired.
5. To continue to collect and record the experience of the profession on subjects relating to Medical Science, and to publish the same in occasional or annual volumes, calculated to prove the just claims of the different classes of the practitioners of the healing art to that confidence of the public which they have so long enjoyed.
6. To give a brief account of the discoveries and improvements which have been made in medicine, surgery, and the accessory sciences, within the preceding year.
7. To offer such encouragements of honorary rewards, as may to them (the Committee) seem proper, for the best practical Essays on select subjects relating to Medicine and Surgery, as may call forth the energies, particularly of the younger members of the profession, and elicit improvements in the healing art.
8. That the profits arising from the publication of the Transactions of this Association, be devoted to the above-named laudable purpose.

Published by order of the Meeting,

1, Keppel Street. JOHN POWELL, *Secretary.*

An elderly married medical man, who is living in one of the best streets at the west end of the town, and who is occupying a very large house, within five minutes walk of the Schools of Medicine and of Anatomy, receives into his house a limited number of medical students to board and lodge; where every care is taken to forward their views and regulate their studies, to enable them, in a short time, to pass their examinations at the College of Surgeons, and Apothecaries' Hall. Many opportunities will be allowed to those who are desirous of prosecuting their studies in the Practice of Midwifery, by attending to cases in the lower class of society. It is the wish also of the Advertiser to render this Establishment every thing that will be agreeable and pleasant in regard to domestic comfort. Further particulars may be known by application personally, or by letter, post paid, to Mr. Tucker, Surgeon, 16, Berners Street, Oxford Street.

I hereby certify that Mr. COLES, of London Bridge, has perfectly succeeded in keeping up a very difficult and complicated rupture, on which I operated some years since, in which case many of the best truss-makers in London had failed to effect any relief.

When I placed this patient under his care, I promised, should he succeed, to give him a certificate of my approbation, and, in conformity with that, I now state my firm conviction, that his truss will be found more efficacious than any at present employed in similar cases.

I have since tried his trusses in other cases, and have been much pleased with the ingenuity he has displayed in adapting his means to the circumstances of each case.

HENRY EARL,
George Street, Hanover Square.

July, 23, 1823.

Dr. POWER has in great forwardness a Second Edition of his Treatise on Midwifery; the whole being newly arranged, and comprising material alterations and additions.

Mr. CURTIS will commence his next Course of Lectures on the Anatomy, Physiology, and Pathology of the Ear, on the 1st of October.

Mr. R. W. BAMPFIELD has in the press the Second Edition of his Practical Treatises on Tropical and Scorbutic Dysentery, with some additions.

OBITUARY.

On Wednesday, 16th July, Andrew Matthias, Esq. of Old Burlington Street, Surgeon to the General Lying-in Hospital. His work on the "Mercurial Disease" obtained him deserved celebrity, and amply rewarded him for his research and close investigation. His death was occasioned by apoplexy.

On Wednesday, June 4th, John William Newby, Esq. of Poland Street, in consequence of opening the body of a child who died of enteritis and erysipelas of the abdomen. This gave rise to a pustule on the back of the left thumb, inflammation of the axilla and breast, which occasioned his death.

XIII.

TO CORRESPONDENTS.

☞ The principal Editor of this Journal being absent on a tour on the Continent at the time the present number was closed, several small articles of correspondence and intelligence must necessarily lie over till his return, when they will be attended to, no doubt.

The severe satire of "INFRA DIG" could not be inserted in the superintending Editor's absence. The Editor, *ad interim*, however, cannot help expressing his surprise that the Committee at Somerset House, should have admitted two such baboon-looking faces as those of Sir CHARLATAN DRAWCANSIN and Son, over the portal of their highest room. Nor is his surprise less, that a metropolitan physician should *exhibit* himself at full length, on the walls of the same room, along-side of a human skeleton with a *crooked spine!* What is this but an *intra*, instead of an *extra-mural* advertisement, a la Bonassus, Eady, or Warren's Blacking? Bear this in mind, ye Censors of Warwick Lane!

The requests respecting the first volume of Mr. Clarke's Work on Female Discharges shall be complied with in our next number.

To the inquiry respecting Burns' Surgical Anatomy of the Neck, we can only answer that the work is exceedingly scarce, nor do we hear of any preparation for re-publishing it.

Letters, books for review, information, subscribers' names, &c. &c. are to be addressed to the Editor's residence in London, as usual:—he will return before the December number is published.

☞ We have given, in this number of the Journal, upwards of 20 pages of letter-press beyond the established limits.

CONTENTS.

OF

No. 15, Vol. IV. For DECEMBER 1823.

Art. I.

M. Tacheron's Anatomico-Pathological Researches in Practical Medicine - - - - - - - 487

II.

Sketches in Bedlam; or Characteristic Traits of Insanity - 512

III.

Transactions of the Associated Apothecaries and Surgeon-Apothecaries, Vol. I.

Art. 1. An Essay on the Education and Duties of the General Practitioner in Medicine and Surgery. By Thomas Alcock - - - - - - - - - 522

2. Dr. Johnson's Case of Chronic Carditis - - 548

IV.

Dr. Chapman's Elements of Therapeutics and Materia Medica (concluded from page 77) - - - - - 551

V.

On Thoracic Percussion and Abdominal Compression - 568

VI.

Mr. Percivall's Elementary Lectures on the Veterinary Art 583

VII.

Dr. Paris and Mr. Fonblanque on Medical Jurisprudence (continued from page 426.) - - - - - 595

VIII.

(Retrospective.)

Mr. Charles Mansfield Clarke on those Diseases of Females attended by Discharges.

Part I. On Mucous Discharges - - - - - - 635

IX.

Mr. Guthrie's Lectures on the Operative Surgery of the Eye (Concluded from p. 448.) - - - - - 658

X.

Quarterly Periscope.

SPIRIT OF THE PUBLIC JOURNALS.

1. Dr. Andral's Researches on the Pathological Anatomy of the Digestive Canal - - - - - 673
2. Dr. Price on the Management of Leeches - - 696
3. Dr. Scoulton on Menigine - - - - 696
4. Mr. Wansbrough's Case of Poisoned Wound - 697
5. Mr. Ward on Abortion - - - - - - 697
6. Dr. Lavagna on Amenorrhœa - - - - 698
7. D. Carter on Epilepsy - - - - - 698
8. Dr. Crawford on Tic Douloureux - - - 699
9. Dr. Pommer on Antimoniated Ointment - - 699
10. Destruction of a Portion of the Spinal Marrow - 700
11. On Extirpation of the Thyroid Gland - - 702
12. M. Flourens on the Nervous System - - - 703
13. Enlargement of the Heart - - - - - 705

XI.

FRACTURES OF THE CERVIX FEMORIS.

1. Practical Observations in Surgery. By Henry Earle, Esq. F.R.S.
2. Observations on Fractures of the Neck of the Thigh-Bone. By Sir Astley Cooper, Bart. &c. - 706

XII.

Bibliographical Record - - - - - - 729

XIII.

Biography—Dr. Baillie - - - - - - 739

XIV.

MISCELLANEOUS INTELLIGENCE.

Dr. Merriman to Dr. Johnson - - - - - 739
Ulceration of the Cæcum - - - - - - 739
German Translation of Dr. W. Philip's Work on Indigestion - - - - - - - 741
Transactions of Associated Apothecaries - - 741
Clapham Retreat - - - - - - - 741
Dr. Smith's Lectures on Medical Jurisprudence - 741
Dr. Harrisons' Letter to the Editor - - - 742
Injecting Machine for the Stomach and Bowels - 742

THE

Medico-Chirurgical Review,

AND

JOURNAL OF MEDICAL SCIENCE.

(Analytical Series.)

"Nec Aranearum textus ideò melior, quia ex se fila fingunt; nec noster vilior, quia ex alienis libamus, ut apes."

VOL. IV.] DECEMBER 1, 1823. [No. 15.

I.

Recherches Anatomico-pathologiques sur la Médecine Pratique; ou Recueil d'Observations sur les Maladies Aigues et Chroniques, faites a l'Hospice Clinique interne de la Faculté de Médecine de Paris, et dans les autres Hopitaux, sous les Yeux de M. M. les Professeurs Corvisart, Leroux, Boyer, Fouquier, Petit, Recamier, Laennec, Jadelot, et autres Médecins recommandables. Par C. F. TACHERON, M. D. Medecin Civil et Judiciare du Onzieme Arrondissement, &c. &c. Three vols. 8vo. Paris, 1823.

"Observatio est filum ad quod dirigi debent Medicorum ratiocinia."
BAGLIVI.

THE extensive analyses which we have given of the works of Broussais, Lallemand, Parent-Duchatelet, Martinet, and Laennec, in various numbers of this Journal, have been of some service to our brethren on this side of the channel; as presenting them with more elaborate and minute details of pathological investigations than had ever before been conveyed to them through the medium of a review. In this department of medical science, our continental brethren have more zeal, industry, and opportunities than we have—and it has grieved us to see a respected cotemporary of the North set up a claim of superiority on our parts, over the pathological investigations of our neighbours. This is truly ridiculous, and exposes us to the derision of strangers. In therapeutics we have a decided superiority; but no man, not completely blinded by prejudice, could think of claiming the palm of pathology for the profession of these Isles. Even had they the same zeal, industry, and opportunities, still they

would not have the *subjects* for anatomico-pathological investigations, in consequence of the active treatment on this, and inert practice on the other side of the channel. But we have said so much on this topic, when reviewing the works abovementioned, that we shall proceed to the work before us; containing an ample *corpus historicum* of cases and dissections.

Pathological anatomy being the science which teaches us the alterations of structure induced by disease, it is evident, that it must be imperfect where the history of the symptoms does not accompany the dissection—for the great object is, to trace the connexion or relation of the *external* phenomena with the changes of organization that are going on *internally*. Without pathological anatomy then, the diagnosis must always be uncertain, and the prognosis hazardous—neither can the therapeutical indications, without it, rest on a solid basis. It confirms or invalidates the diagnosis too hastily established—it teaches the physician what he has to hope and what he has to fear—it prevents him from being lulled into a false security—and leads him (or ought to lead him) to employ early and active measures, so as to give the patient all the advantages that medicine can afford. In fine, he who neglects to examine, on every possible occasion, the bodies of those who die under his care, commits a crime against the living. He is like a mariner who steers without a compass, and who is perpetually led astray by the delusions of the eye. In vain does the physician record the history, note the symptoms, or explore the causes of a disease, if he does not perfect the investigation by making himself acquainted with its actual seat, and the nature of the organic lesions which produce the external phenomena. This last can only be acquired by familiarity with pathological anatomy.

The work before us is constructed on principles that entitle it to confidence—the cases occurring principally in public hospitals, and the notes being taken down in the presence of numerous spectators—"en présence d'un tres grand nombre d'élèves qui tous peuvent répondre de la fidelité que l'on y mettait—de la bonne foi avec laquelle on avouait les malheurs, comme on recontait les succès." To render the work more extensively useful, cases are also selected from the writings of established authors, and the name of each is carefully placed at the head of the case. In this place, we were delighted to learn, that the general administration of the Parisian hospitals had just signed a decree enjoining the annual publication of all important cases. "Elle fait publier tous les ans un Annus Medicus rempli de faits trés-interressans pour la medecine pratique." By this procedure, (which should long ago have been established) innumerable valuable

facts will be rescued from oblivion—pathology will be enriched—therapeutics improved—and knowledge diffused among the profession at large, which would otherwise have been confined to a few individuals. For the honour of this country we hope the example will be followed, not only in the metropolitan, but in the provincial hospitals.

The cases detailed in these volumes have been selected from amidst a vast number—nearly five thousand examples. They have for their object the delineation of those acute and chronic diseases which are daily presented to the eye of the practitioner—and to the contemplation of the young physician, for whom they will serve as a *vade mecum* while pursuing his studies in hospitals and other clinical institutions.

Without attachment to any particular system, our author found it necessary to adopt a certain arrangement, in order to prevent, as much as possible, repetition and confusion. He has also adopted a terse and aphoristic style and language, very unusual in the writings of most of his countrymen.

At the commencement of each order, or class of maladies, a short description is placed, and after the narrative of cases is closed, a few brief reflections and observations follow.

Our author divides the phlegmasiæ into five orders, according to their seats; *viz.* inflammation of the skin—of the mucous membranes—of the serous membranes—of the parenchyma of the viscera and glands—and finally of the muscular structures.

ORDER I.—Cutaneous Inflammations.

These would seem to have their seat in the capillary system immediately beneath the epidermis—and, though sometimes the result of local irritation, are far more frequently dependent on affection of a remote organ. They are sometimes sporadic—sometimes epidemic—and very often contagious. They are not always confined to the skin; but are sometimes extended to, or propagated from, the mucous membrane of the stomach and bowels, as has been repeatedly proved by dissection.

Genus I.—*Variola.* This is the product of a peculiar virus —"and is preceded by a febrile movement on the mucous membrane of the stomach." For obvious reasons we shall not touch upon those cases which were not fatal; our object being to ascertain the pathological anatomy of the disease.

Case 1. Passing over six cases of distinct small-pox, we come to one of confluent, which proved fatal on the 16th day.

The patient was a youth of 17 years of age, who, on the 7th day, when covered with pustules, the bowels constipated, the pulse strong and frequent, the carotids pulsating violently, the heat of skin intense, &c. had *decoction of bark* in the way of medicine!! To this was added the powder in considerable quantities—but the patient died.

Dissection. The sinuses of the dura mater gorged with blood, and some bloody serum at the base of the cranium. *Thorax.*—Two or three ounces (un bon verre) of serum in the cavity of the pericardium—the heart rather larger than natural. The variolous eruptions were very distinctly seen in the mouth, on the velum palati, fauces, and upper part of the larynx. The uvula, velum palati, and trachea were inflamed, the latter containing much mucus. Lungs sound. In the abdomen there were many marks of inflammation.

Case 2. This was a baker, 25 years of age, who was taken ill on the 30th of December, and died on the 10th of January. He too had the bark with camphor, &c. and no depletion was used. Dissection, in this case, offered nothing remarkable, except inflammation and pustules on the pharynx.

It is but justice to our author to state that, in his reflections on these two cases, he questions the propriety of exhibiting the bark, and queries whether antiphlogistics and derivatives were not too much neglected?

We need not follow our author in his encomia on vaccination, and his anathemas against the sceptics in its infallibility. These things are old in this country and but new in France. May they never arrive at the same height in the latter, as in the former country!

Genus II.—*Rubeola.* Our author observes that, in mild cases of measles, abstinence, regulated temperature, diluents, and demulcents, are sufficient to conduct to a safe termination; but, when complicated with inflammation of internal organs, we must use depletion, and ought to be cautious how we administer tonics. Of the eight cases of measles detailed by our author, six recovered and two died. Of these last only one was opened, displaying thoracic inflammation, and enlargement of the spleen and liver. We do not, indeed, see the utility of this section in the work before us.

Genus III.—*Scarlatina.* Only three or four dissections of this disease are given. The first was a youth of nineteen years of age, who was taken ill on the 3d of June with scarlatina, and was treated with emetics, antispasmodics, mindererus, and camphor. He died on the 7th day in high deli-

ruim, &c. The head does not appear to have been examined. The interior of the glottis and the intestines were inflamed. No purging medicine appears to have been exhibited.

The second case was a young man of 21 years of age, who was taken ill on the 20th February, and died on the evening of the 26th of the same month. No active treatment was used, and dissection showed the liver gorged with blood and the intestines inflamed.

The third case was a child of six years, who died on the 12th day of his illness—no active treatment. The right lung was found inflamed, and the left suppurated. The liver was gorged with blood.

The fourth patient, aged ten years, had been epileptic four years. He was taken ill with scarlatina on the 25th April, and died on the 30th of the same month. Orange-flower water formed the principal remedy employed. On dissection, the ventricles of the brain were found deluged with six ounces of water. The mucous membrane of the stomach and bowels was slightly inflamed. One hundred and eighty lombrici, from six to ten inches in length, were found in the jejunum and ileum.

Genus IV.—*Erysipelas*; Genus V.—*Dartre*, we must pass over as not containing any thing worthy of notice.

ORDER II.—Inflammation of the Mucous Membranes.

We must pass, unnoticed, several genera of this order, as ophthalmia, coryza, otitis, angina tonsillaris, &c. resting a few moments on

Angina Trachealis. This inflammation is divided by our author into two varieties—that which is attended with a membraneous exudation, and that which is not.

Case 1. A woman, 39 years of age, was taken ill on the 13th May, with symptoms of violent inflammation of the upper part of the trachea, but without any thing appearing on inspection of the fauces. Ten leeches, diluents, and an emetic, are the remedies noted down. She died the next day.

Dissection. The morbid appearances were bounded to the larynx. The borders of the glottis were thickened and covered with a yellowish and dense layer of exudation—the aperture of the glottis was lessened—the mucous membrane covering the epiglottis was of a lived red colour—the trachea, and branches of the bronchia were filled with mucosities.

Case 2. A man, 40 years of age, was exposed to the ex-

plosion of a vessel, in which ether was distilling, and, immediately afterwards, was affected with violent headachs, epistaxis, pain in the chest, cough, and hæmoptysis. These symptoms, however, disappeared, but being exposed to a current of cold air when heated, he was seized with sore throat, difficulty of breathing, and pains in his limbs, without fever. When received into the hospital, the tongue appeared red, dry, and rough—pain in his throat—velum palati red—respiration quick, and performed with difficulty—pain in the region of the sternum—no cough. Fifteen leeches to the anus—antispasmodic potion—ptisan. Nothing more, of any consequence, was done, and the patient died three days afterwards.

Dissection. The trachea being slit open, there issued a quantity of liquid, which filled it and the bronchia. The mucous membrane was slightly livid, particularly in the neighbourhood of the larynx. There was no other remarkable appearance.

Well may our author observe on this case—"Il est propable que si le malade se fut soumis à un traitment rationnel dès l'origine de cette maladie, on aurait pu espèrer un résultat different." But we do not quite agree with M. Tacheron respecting this *rational treatment.* It is not by "the vapours of warm water and ten or a dozen leeches to the neck," that we can expect to check acute inflammation of the larynx. General blood-letting should be employed—purging should be used—numerous leeches should be applied to the neck—blisters to the sternum—and antimony with calomel internally exhibited.

Croup. Only one fatal case, with dissection, is given by our author. Maria Gambier, three years of age, was seized, on the 10th June, with sore throat, to which no attention was paid. Next day, however, the symptoms were so violent that a physician was called in, and leeches were applied to the neck. Third day, no amelioration of symptoms, and the little patient was bled. In the evening, a blister to the throat, and a purgative glyster. Died this evening.

Dissection. The mucous membrane of the trachea red, and lined with a membraniform exudation, thick, and strongly adherent. This false membrane was covered with a puriform matter, and the membrane itself was prolonged into the different ramifications of the bronchia.

Genus V.—*Hooping Cough.* In this, as in the preceding we shall confine ourselves to the fatal cases accompanied by dissections—pathology being the article of importation on

which we set any value in these volumes. We may just premise the cases by remarking, that our author looks upon hooping-cough, in its simple form, as a nervous affection, of an intermitting character; and that it is only dangerous when it terminates in, or is complicated with, inflammation.

Case 1. Michael Gallois, three years of age, was taken with hooping-cough in the month of September, immediately after the small-pox. He was sent to the HOPITAL DES ENFANS on the 3d of October. The symptoms were not of a formidable description at this time, and the usual routine of ipecacuan, syrups, assafœtida—and (among other means of cure) vaccination—were employed. However, the child was getting better, when, on the 3d November, it was seized with convulsions, and died the same night.

Dissection. Nothing remarkable in the head. The membrane lining the trachea and bronchia was somewhat redder than natural—the lungs slightly gorged—the liver enlarged—three intus-susceptions in the small intestines—and several contractions of the calibre of the tube in other points, "which showed that other intus-susceptions were forming." The mucous membrane of the intestines was inflamed in three or four places.

Case 2. The following case cannot be called one of hooping-cough; but it is, nevertheless, worthy of record.

Josephine H——, 30 years of age, subject from youth to nervous affections, entered the hospital on the 12th November, presenting the following symptoms:—emaciation—head-ach—tongue coated—total loss of voice since the 8th November—breathing embarrassed and quickened—acute pain in the left side of the throat—paroxysms of choaking—dry cough—tumultuous action of the heart—small, quick, and irregular pulse—dyspnœa on going up an ascent—sleeplessness—starting up from short slumbers—hysterical fits of laughing. These symptoms continued, with some variations, till the 16th Jan., the paroxysms of difficulty of breathing, threatening suffocation, being the prominent and most distressing phenomena.—On the last-mentioned day, this poor young woman expired in a paroxysm of most dreadful agony. Most of our readers will be prepared for finding serious organic disease. They will be greatly disappointed.

Dissection. The mucous membrane of the pharynx slightly inflamed—that of the larynx and trachea perfectly sound. The lining of the bronchia was red—the lungs rather gorged—the heart somewhat larger than usual—all other parts of the body quite healthy.

"In this case," says our author, "I never saw such paroxysms

of menacing strangulation. All the symptoms led us to suppose that there was some tumour pressing upon the trachea, which obstructed the passage of air, and caused such a noise in breathing as was horrible to hear (un sufflement horrible à entendre.) At these times, the face presented the appearance of a person just strangled —and yet dissection showed nothing to account for these dreadful, and ultimately fatal, symptoms." 195.

The above case will call to the minds of several medical men of this metropolis, the case of a young lady at Stoke Newington, (whom we are at this time, 20th July, attending,) but whose fate is still uncertain. As it is the most remarkable case we ever witnessed, we shall forbear stating it till the termination is known.

Genus VI.—*Convulsive Asthma.* Five cases of this disease are described by our author, of whom four recovered—and one died, the dissection of which is given. Our author considers this disease as a kind of hooping-cough, affecting particularly irritable adults and old people, consisting of a spasmodic contraction of the muscles of the chest, larynx, and diaphragm, returning at intervals. He is not disposed, therefore, to agree with Rostan and his followers, who look on asthma as a symptom of disease of the heart.

Case 1. A man, 64 years of age, had been affected with convulsive asthma for four years. He came into the Charite at the conclusion of an attack of bilious fever, and there he died about five weeks afterwards, apparently from debility. He was opened in order to ascertain the state of the lungs. These organs were adherent to the parietes of the chest—they were full of air, but their parenchymatous structure was in a singular state of decay—"état de deperissement singulier." The least pressure burst the air-cells and mashed the substance of the lung. "Il suffisait de les presser sur un point pour rompre les cellules aèriennes, et affaisser leur substance comme du papier mâché." There was no extravasation, nor any other lesion of structure there, or elsewhere.

Genus VII.—*Pulmonary Catarrh.* Of all the inflammations to which the human frame is subject, there is probably not one of such frequent occurrence as catarrh. The anatomical characters of this phlogosis are well known to be, *redness*, more or less marked—and sometimes a certain degree of *thickening* of the membrane. The bronchial inflammation is accompanied by a secretion of mucus, more abundant than in a state of health, and varying much in its quality in the different stages of the phlogosis. It seldom occupies the whole of the lining of the bronchia, or even of one entire

lung. When it does, the disease is serious, and violent fever attends. The causes of this disease are sufficiently well known in this country at least.

The cases where dissection was permitted are small in number, in this section of the work, and will detain us but a very few minutes.

Case 1. Guilleminet, aged 36 years, was seized with pulmonary catarrh in the month of January, 1812, which terminated fatally, on the 17th April following, at the end of an epileptic paroxysm, occasioned by a dispute with one of his comrades. It is evident, therefore, that the death was to be attributed to the epilepsy, rather than to the pulmonary affection.

Dissection. The vessels of the meninges, and the sinuses of the brain were gorged with blood. Much serum was also effused into the lateral ventricles and at the base of the brain. The right lung was gorged with black blood, and adherent to the costal pleura. The left lung was sound.

Case 2. Tranchepain, 52 years of age, was seized with severe pulmonary catarrh in the month of February, and died of the same on the 12th April following.

Dissection. The right lung solidly hepatized. When cut into, a puriform matter flowed from several points in the superior portion. The left lung was sound, as were all other parts.

It is a curious pathological fact, which every attentive observer must have repeatedly noticed, that the right lung is infinitely more frequently the seat of disease, especially of this condensation or hepatization, as it is called, than the left. What can be the reason of this?*

Case 3. Barthelet, aged 77, entered the hospital on the 28th March, affected with symptoms of intense pulmonary catarrh. The breathing was laborious and noisy—the cough strong, and recurring in paroxysms of long duration—the expectoration white, and mixed with specks of yellowish matters resembling pus. On the 1st of April, the patient complained of bad taste in his mouth, and pain in his head. From the 4th to the 6th these symptoms increased—the oppression became excessive—the tongue brown—the breathing

* Is it because the liver is opposed to the descent of the diaphragm on the right side, and, consequently, prevents so free an expansion of the right lung, at each inspiration, as on the left side?

short and noisy—the pulse small, frequent, and sometimes intermittent—tremors of the limbs, &c. These becoming exasperated, there occurred a discharge of pure blood from the intestines, and death took place on the 12th April 1812.

Dissection. The right lung adherent to the costal parietes by ancient attachments, but sound and crepitant in its substance. The left lung sound. The rest of the viscera healthy, except about seven inches of the ileum, just before it arrives at the cœcum, which portion was red, inflamed, and thickened interiorly. It was lined with a substance resembling chocolate.

We believe that there is no inflammation so insidious, at times, as that of the intestines. We lately assisted Mr. Pretty, of Mabledon Place, in opening the body of an old lady who, previous to her death, had not a single symptom of abdominal inflammation; yet the cœcum was found sphacelated, and the peritoneum, in many places, nearly in a similar condition.

Case 4. A man, aged 58, had received a fall in the month of August, 1820, which injured the chest, for which he was treated methodically at the hospital, and discharged apparently cured, in a short time. He experienced, however, some symptoms of pulmonic affection till November, 1821, when he was re-admitted, exhibiting the following phenomena. Inclination to lie on his back—sleep disturbed by distressing dreams—too much colour in the face—tongue white—breathing pretty free—some cough, with viscid expectoration—pain in the lower portion of the right side of the chest, where percussion elicited a dull sound—diarrhœa for two days past—pulse frequent. These symptoms went on increasing till the 2d January, 1822, when he died.

Dissection. The right lung hepatized, and containing some depôts of purulent matter The left lung was rather denser than natural. Several portions of intestine inflamed.

Under the head of Hæmoptysis we have a great number of cases, but only one or two dissections. We shall present the reader with one.

Case. Mons. R——, had been affected with a catarrhal complaint for some time, when, in crossing the Louvre one day, he was seized with hæmoptysis, and brought up a great quantity of blood. Having reached his home the bleeding stopped; but he continued to lose strength—his breathing was embarrassed and oppressed. He entered the hospital on the 21st July, presenting the following phenomena. Could only sit in bed—breathing short, accompanied by heaving of

the sternum—face flushed—lips of a violet colour—pulse feeble, small, and frequent—occasional fits of coughing. Bled to 10 ounces. 22d. The symptoms less distressing—debility rather increased—expectoration thick, copious, yellow, and mixed with blood. 23d. The symptoms all exasperated, and he died in the evening.

Dissection. The lungs strongly adherent to the thoracic parietes. The right lung completely hepatised, and gorged with blood. On cutting through the parenchyma, the surfaces presented numerous points of incipient suppuration. The left lung was affected in a similar manner, but not near to such an extent. In several places there were cavities or caverns, the surfaces of which were lined with a matter similar to that which had been discharged by expectoration. The heart was greatly enlarged. No other organic lesion.

Genus VIII.—*Gastritis.* When we reflect on the structure, functions, extreme sensibility, and extensive sympathies of the stomach, we cannot wonder at the frequency of its affections—and especially of those morbid states comprehended under the terms irritation and inflammation.

Gastritis may be occasioned by external injuries; but more frequently by acrid substances taken internally—by cold drink taken too soon after being heated with exercise, or agitated by passion—metastasis of gouty and other inflammations from distant parts—imprudent use of emetics—suppressed perspiration, and various other causes known or unknown. Most commonly, gastritis is complicated with inflammation of the mucous membrane of the intestines—constituting the *gastro-enteritis* of Broussais and his numerous followers—or rather, indeed, the great mass of what were formerly denominated billious, gastric, and idiopathic fevers. These complications, however, will come under separate consideration, after the subject of simple gastritis is disposed of.

Case 1. Chartin, aged 44 years, experienced a chill on the 1st of April, 1811, succeeded by general shivering or rather tremor. The day after, he was feverish, with pain in the chest, and some inclination to vomit. An emetic was taken by the advice of a friend, but without effect. He entered the hospital on the 10th of April, presenting the following symptoms:—disposition to lie on the back—some confusion of intellect—flush on the cheeks—lips dry, and rather inclined to a violet hue—yellowish fur on the middle of the tongue—breath fetid—scanty alvine evacuations—urine scanty and

high-coloured—temperature of the surface slightly elevated—breathing difficult and noisy—cough, with mucous expectoration—pains in various parts of the body—great anxiety—pulse small, frequent, and sometimes intermitting—thirst keen—great prostration of strength. On percussion, the right side of the thorax emitted a dull sound—the hypochondria rather full—epigastrium tender on pressure. Venesection to eight ounces—a large blister to the chest—infusion of cinchona. At nine in the evening, relief from the bleeding, but he died a few hours afterwards.

Dissection. In the thorax no disease or extravasation. The abdomen was greatly distended; the intestines, in several places, were black, and in appearance sphacelated through all their coats. The stomach was of a dark and violet colour—its coats greatly thickened, indurated, and much increased in weight—the mucous membrane was not not only phlogosed, but had blood extravasated into its texture. The inner membrane of the jejunum was inflamed through an extent of five or six inches.

Case 2. John Meton, aged 24 years, of a weakly constitution, had been subject, since the age of six years, to vomitings of blood, which became more frequent and severe after having received a blow from a musket on the region of the stomach, in the revolutionary war. A fortnight before his entrance into the hospital, he had experienced a severe attack of headach, accompanied by shivering, and great pain in the stomach, with frequent and violent vomitings. When admitted into the Clinique, he had great pain of head and epigastrium—vomiting of black matters, among which was a proportion of blood of a very fœtid odour—the same odour was exhaled from the whole body—cough distressing—chest sounding badly in several places—pulse feeble and frequent. He died soon afterwards.

Dissection. The left lung was still a little crepitous, but not so the right—both were gorged with blood and very heavy—when sliced, there exuded from the cut surfaces a sanguineo-purulent matter, without showing any distinct depôt of pus. The stomach was greatly distended, and its vessels extremely dilated—a stripe of a violet-red colour opposite to the liver, four inches long, and three quarters of an inch in width—on the interior surface, another large inflamed patch, not corresponding with the exterior one. What was most remarkable, was the varicose state of the numerous enlarged vessels of the mucous membrane, from which blood issued

copiously by the slightest touch of the scalpel—thus disclosing the source whence came the bloody vomitings to which this young man had been subject since the age of six years. "It is probable, (says the narrator) that the mere presence of food in the stomach was sufficient to cause an effusion of blood from these varicose vessels, when they were in a state of turgescence, and thus produce the hæmatemesis."

Case 3. This was a case of poisoning by nitric acid, which a man swallowed on purpose of self-destruction. He lived four days in great torture, and, on dissection, inflammation of the œsophagus and mucous membrane of the stomach was evident. The other viscera sound.

Case 4. A widow, aged 27 years, having been affected for some months without a discharge, for which, she learnt that VAN SWIETEN's liquor (liq. oxym. hyd.) was a specific, she procured a bottle of it, and took two or three table-spoonfuls daily, without any other dilution than a small quantity of water. In three or four days, she began to experience colicky pains, which she did not attribute to the proper cause, and continued the medicine, as usual, till the bottle was finished, by which time, to the pains, was superadded a severe diarrhœa, accompanied with burning heat throughout the whole line of the digestive tube, sense of constriction in the pharynx, great difficulty of swallowing, disgust of food, nausea, bad taste in the mouth, thirst, white tongue, pain in the epigastrium, fetid stools, dry skin, acute pain in the heels, pulse feeble and frequent, great prostration of strength, extinction of voice. In this deplorable condition, she entered the hospital on the 26th October, 1819. No proper treatment had been instituted previously.

The symptoms above enumerated, continued to increase in degree of violence till the 18th November, when she expired, vomiting till the last.

Dissection. The right lung was sound, the left tuberculated, and some of the tubercles in a state of suppuration The lower portion of the œsophagus was tinged of a yellow colour, which extended into the stomach. A black fluid was found in this last organ, the pyloric orifice of which was encircled with numerous thickened bands. This thickened condition pervaded the whole extent of the small intestines, there being many black spots and ulcerations about the valvulæ conniventes. The mucous membrane of the stomach and small intestines was soft and pulpy. There were black spots on on the peritoneum.

Case 5. Nux vomica.—A young woman, in consequence of disappointment, determined to take poison, and applied to a chemist, where she procured, under false pretence, about a drachm of nux vomica, which she took in a glass of wine. In a quarter of an hour, she felt uneasiness, with sense of constriction, weight, and heat in the stomach, mouth, and pharynx—painful lassitude of the limbs, followed by convulsive movements and stiffness, especially about the knees. Presently a tetanic stiffness spread itself over the whole frame—the trunk and head were bent backwards—the jaws rigidly locked—the limbs strongly extended—the intellects disturbed. A quantity of milk was exhibited, and much vomiting followed. She was conveyed to the Clinique the same evening, and the following symptoms noted:—Tetanus—convulsive twitchings—crying and laughing—disturbance of the intellects—cheeks flushed—tongue inflamed—thirst urgent—pain in the stomach, and sense of constriction there and in the pharynx—frequent pulse—hot skin. Diluent drinks. On the third day, disappearance of the tetanus—restoration of the intellectual faculties—thirst and vomitings still continued. She gradually recovered.

Case 6. Poisoning by Opium.—A young man employed in the dispensary of La Charité, determined on self-destruction, and, for that purpose, swallowed about five drachms of the extract of opium, and went to bed. This quantity, however, did not produce the desired effect of ridding him of life, and he, next day, took five drachms more of crude opium. This second dose only provoked some vomiting. On the 3d morning the affair was discovered, and two grains of tartarized antimony were exhibited, which brought off a great quantity of frothy and green matters. Acids were now exhibited—and he slept on the third night, awaking in the morning in a state of delirium. He was examined in the hall of the pharmacy, and appeared pale and wild, with violent headach, tendency to sleep, pulse small, weak, and often irregular, disinclination to answer questions, great debility. Lemonade, cordials. For the next three days, continuation of the same state. The patient complained of severe pain in the stomach—the breathing was short—there was tension of the epigastrium. He dragged out a wretched existence of five days more, and then died, "presque sans agonie."

Dissection. Considerable infiltration between the arachnoid and pia mater—some serum in the ventricles and at the base of the brain. The lung of the left side was shrunk and

diseased, the cavity of that side being filled with sero-purulent effusion, and the internal parietes lined with false membranes. The heart was sound. There was no perceptible disease in the stomach nor the intestines.

For our own parts, we do not think the patient took one tenth part of the opium he is said to have taken—nor do we think that he died of the effects of the opium at all. There was quite disease enough in the thorax to destroy him.

The next 30 cases are all cancers, open or scirrhous, of the stomach, detailed with endless minuteness and uniformity, quite tiresome to the reader. These we shall pass over entirely. We must also pass over some cases of hematemesis, recorded by our author, as they did not prove fatal, and consequently no light is thrown on the disease by dissection. The treatment pursued was, of course, of the milk and water kind.

Genus IX.—*Phlegmasia Gastro-Intestinalis.* This is the great class which is now making such a noise on the Continent, and which has usurped the place of idiopathic fevers. In the lining membrane of the stomach and bowels, Broussais and his followers place the *fons et irigo* of fever in the same confident tone that Dr. Clutterbuck and his followers, in this country, place the throne of fever in the brain and its meninges. Our author is a firm disciple of the Broussaian School, and will swear by the following text of his master:—"*Une phlegmasie locale est toujours le siege primitif de la fièvre qui n'est qu'un phénoméne sympathique ou le resultat d'une douleur transmise au cœur et à tout l'appareil des capillaires sanguins par l'àrbre nerveux dont quelques branches font partie de l'organe souffrant.*"

It is of no consequence what the kind of fever may be. If it be contagious, so is this local inflammation. If it be intermittent, so is the local inflammation. If it be endemic, the phlegmasia is endemic. If the fever be epidemic, so is the inflammation. In Egypt the local phlogosis is in the groin—in Jamaica it is in the liver—in Paris it is in the stomach and bowels—in Bridge Street, Blackfriars, it is in the brain. In short, there never was so accommodating a disease as this local inflammation! All the different kinds of fever (improperly so called, say they) are only *shades* (nuances) of local inflammation or irritation.

The first shade, then, (premiere nuance) is a stomach affection, (embarras gastrique,) and "it consists in a collection of bilious secretions, having its seat in the stomach or the

duodenum." "Il consiste dans un amas de secretions bilieuses ayant son siége dans l'estomac ou le duodenum." Now "its seat" refers to the collection (amas) and how the Broussaians prove that the seat of bile is in the stomach, we know not. That bile may come from the duodenum into the stomach by the action of vomiting we grant; but that it takes its seat there previously we have no proof whatever. This first shade of phlegmasia is considered by our author as generally symptomatic, and dependent on irritation of the mucous membrane of the stomach and bowels. Fourteen cases are related of this "embarras gastrique," or common bilious disorder, which were all treated by emetics and ptisans with success. But to us it appears rather odd that, if the cause of the bilious collection be *irritation* of the mucous membrane, *emetics* should be employed to remove it. Our author seems aware of this objection, and recommends as an improvement on the emetic plan—"*une methode legerement antiphlogistique et delayante.*" With singular inconsistency M. Tacheron observes, that if in this "first shade of *phlegmasia*" there exist the slightest particle of *phlogosis (!!)* the emetics will do harm! "car s'il y eut existé la moindre phlogose nous aurons observé une augmentation dans les symptoms, au lieu d'une diminution."

To us the simple explanation appears to be this—by numerous causes a mal-action, or mal-secretion is produced in the stomach and bowels, and the consequent depraved secretions produce, in their turn, irritation of the mucous membranes with which they come in contact; and thence radiates the morbid phenomena attendant on this class of complaints. This explanation accords perfectly with the utility both of emetics and purgatives. Remove, by these medicines, the disordered secretions, and you subtract the main source of irritation, besides giving a stimulus to a new and better action of the organs.

Under this head of Embarras Gastrique, or first shade of fever, our author relates two cases of cholera morbus, one of which proved fatal, and presented some peculiarities which render the case worth notice.

A man, 42 years of age, was suddenly seized on the night of the 24th of August, (after having supped heartily on sallad) with violent vomiting and purging of black and green matters, attended with cramps, pain in the epigastrium, and other symptoms of cholera. In thirty-six hours he lost 30 pounds in weight, so great was the evacuation from the system, and so powerfully had the absorbents acted in that time.

He was received into hospital on the 26th, his countenance sunk, and complaining of bitter taste in his mouth, headach, anxiety, thirst, constant nausea and vomiting, but no purging. Milk and water practice. 27th. All the symptoms exasperated—great restlessness—abdomen much drawn in and very painful—breathing short and obstructed, but no pain in the chest—pulse small and intermitting. 28th. Delirium added to the other symptoms. 2d September he died.

Dissection. A small quantity of serosity in the ventricles and between the coverings of the brain. The pleura was much inflamed, on both sides, with layers of coagulable lymph thrown out by inflammation. The bronchia were filled with mucus. The abdomen prodigiously retracted—the œsophagus, stomach, duodenum, liver and ducts, perfectly healthy. The small intestines remarkable for their state of contraction. They, as well as the peritoneum, appeared of a dark red colour. A considerable portion of ileum was impacted firmly in the pelvis.

The marked pleuritis and the sudden and excessive loss of weight are the two most remarkable circumstances in this case. It is an example, however, proving that great commotions in the functions of vital organs will produce death as effectually as violent inflammation. No one can suppose that the phlogoses described above were the causes of the principal symptoms at the beginning, or even ultimately of death.

DEUXIEME NUANCE.

We now come to our author's second shade of *gastro-intestinal inflammation.* This affection, he avers, is a necessary consequence of the "EMBARRAS GASTRIQUE," and has its principal seat in the stomach or duodenum—sometimes in the liver and pancreas. "Its symptoms persist *without interruption*, from the invasion till the termination of the disease. It is very common: sometimes epidemic, and greatly varied in character, according to the place and season where it occurs." We do not see how the above description or definition agrees with a passage half a page farther on, where our author states this *phlegmasia* to be susceptible of taking on different types—particularly the *intermittent* type. "Elle est egalement susceptible de prendre différens types—celui *d'intermittent* est le plus fréquent." There were but two desiderata necessary to render the theories both of Broussais and Clutterbuck triumphant. These were the admission, on the part of their adversaries, that inflammation might cease

to exist every second day—and that after death there was no necessity to find any trace of the inflammation that destroyed life. The intermittent character of inflammation is boldly proclaimed by Broussais and his disciples—and the non-necessity of finding marks of inflammation in the brain after death is insisted on by Dr. Clutterbuck. Such trifling admissions or indulgences it would be cruel to deny to the founders of an ingenious theory; otherwise we are free to confess that they appear to us to be very serious objections to the respective doctrines of the abovementioned leaders. It is most true that, in fever, the functions of the brain and of the stomach are almost invariably disordered from the beginning. But then, where is the function that is not disordered? If it were insisted on that some one organ or function must be *first* in order of derangement, and we were forced to name that organ, we should undoubtedly say the brain, in preference to the stomach. The various causes of fever must, we imagine, make their primary impressions on the nervous or sentient structure, of whatever part they are applied to, and these impressions must be immediately conveyed to the brain, where it is natural to suppose the first disordered movement obtains. But allowing this to be the case, all the functions become speedily deranged, and the inflammations or disorganizations which we see in the course or at the close of fever, are purely contingent, depending on the predispositions of the parts, or the habits and constitutions of the individuals. The cases brought forward by M. Tacheron himself almost invariably show headach as the first symptom, which is accompanied or followed by the gastric derangement. Not that we deny that affection of the stomach will speedily produce headach; but, in fever, it is extremely difficult to say what organ is the first to be disordered in function.

We shall not dwell on this *second shade* of gastro-intestinal phlegmasiæ, as our author has only favoured us with one dissection. Of that case, however, we shall take some notice.

Case. A young man, ætat. 24, of strong constitution, had been subject, for ten or twelve years, to pain in his head, accompanied by frequent epistaxis. On the 3d of March, 1816, he felt a weight and pain of head, and general lassitude. On the 7th there was much debility, heat, thirst, anorexia, looseness of bowels, with colicky pains, cough, pain in the chest, sleeplessness; of all which symptoms there was an evening exacerbation.

On the 11th he entered the hospital. His face was flushed, lips red, tongue yellow in the middle, thirst urgent, disgust of food, epigastralgia, colicky pains. Eight stools of a bilious character in the last 24 hours. He had a good deal of cough, pulse frequent and hard, great heat, weight and pain in the head. *Venesection to 8 ounces—15 grains of ipecacuanha and two of emetic tartar.* 12th. The blood was strongly buffed and cupped—the vomiting had been copious—five stools—much pain on pressure in the epigastrium. All these symptoms went on, and nothing was done but administer acidulated whey—and foment the abdomen!! He died, and on dissection some ulcerations were found in the colon—the mesenteric glands inflamed—"and all other organs (the author says) healthy."

Here, then, we have a case of "*gastro-intestinal inflammation*," without any marks of phlogosis in the stomach or intestines, except the ulcerations in the colon, which were clearly the effect of the dysenteric complaint. As for the treatment—good Heaven protect us from such milk and water practice, either in France or England!

THIRD SHADE.

This is the "gastro-enterite" of Broussais, and the "fièvre adynamique" of Pinel. Our author professes to range himself under no particular banner, but merely to state facts, and allow his readers to judge for themselves.

The disease under consideration very frequently developes itself in people who have recently exchanged a country-life for that of the town, where a less salubrious air, diet, and occupation, contribute to deteriorate the constitution. It is strongly predisposed to, if not actually excited also, by dirtiness, poverty, the miseries of besieged places, the vitiated air of hospitals and dissecting rooms, or any place where there is a too crowded population, the emanations from putrefying animal and vegetable matters, the depressing passions—in short, by the whole range of causes which tend to develope what we designate idiopathic fever.

Its invasion is rarely sudden. It is usually preceded by mal-aise, tremors of the muscles, sense of weakness, defect of appetite and digestion, &c In some, however, the accession is sudden and more violent, attended by nocturnal exacerbations and daily remissions. The duration of the disease is, on an average, from three to four weeks. In this country, granting that these adynamic or low fevers be the effect of gastro-intestinal phlegmasia, it is certain that the ordinary range of their duration is at least a week less than that which

is stated by our author, as observed in France. This must either depend on a difference of disease, of constitution, or of treatment—probably on all three. This species of phlegmasia, our author remarks, may readily complicate itself with other inflammations of particular parts or organs, which, of course, will render the disease more tedious and dangerous. The fatal termination is often determined, he avers, by the use of tonics too early begun, or the omission of proper means at the beginning of the phlegmasia.

We shall pass over 46 cases detailed by our author, because dissection is the only proof we are disposed to accept of from him, of the actual existence of the phlegmasia under consideration.

Case 1. A shoemaker, 21 years of age, of strong constitution, was taken ill on the 3d of August, 1820, (after having experienced a troublesome cough for a long time) with symptoms of disordered stomach. On the 4th there was debility, with headach, thirst, anorexy, and some nausea. A physician prescribed an emetic, which produced violent vomitings of bilious and blackish matters, followed by several loose stools. On the 6th a purgative, and for the next eight or ten days hot sugared wine, (vin chaud sucré.) On the 16th he entered the hospital, presenting the following symptoms, viz.—supination in bed, despondency of countenance—anorexy—prostration of strength—lips chapped and black—tongue red and moist at the edges—respiration rather tight—thirst excessive—seven or eight stools to-day—skin hot and dry—pulse small and weak. *Lemonade—a lavement.* On the 18th and 19th all the symptoms were exasperated, and on the latter day he died. Here our author gravely blames the whole train of bad symptoms, and even death, on the *purgative*, which was administered in the early part of the complaint. Although we are far from agreeing with those who prescribe repeated purgation in dysenteric affections, where, of course, there, is actual inflammation or high states of irritation in the mucous membrane of the digestive tube, yet we cannot believe that a single purgative—and particularly a French purgative, at the commencement of a febrile affection, such as that described above, could possibly produce so much mischief as is here laid to its charge. We are far more inclined to place the evil to the account of the hot wine system which was pursued for the eight or ten days succeeding the emetic and cathartic. But we must state the appearances *post mortem.*

Dissection. There were two ounces of a reddish effusion under the arachnoid membrane. The inferior lobe of the lungs inflamed and gorged with blood. In the stomach an erosion was found in the great curvature, nearly an inch in diameter, and the parietes were much thinner than natural for a considerable space around this erosion. The duodenum was slightly thickened and inflamed--there were several ulcerations in the mucous membrane of the ileum.

The existence of gastro-intestinal phlegmasia, in this case, we cannot deny; but really we see no proof that it was the primary affection. Two ounces of effusion under the arachnoid afforded sufficient evidence that phlogosis was going forward in the brain, cotemporary, at least, with the abdominal affection. But the following case will place in a still stronger point of view the rage for system which pervades even those who swear they are entirely free from prejudice.

Case 2. Julian, aged 17 years, was seized in the beginning of June with cephalalgia, attended with epistaxis of several hours' duration. The second day there was diminution of the cephalalgia, but return of the nasal hæmorrhage. On the succeeding days there were pains in the limbs—bad taste in the mouth—febrile movements in the system. The patient entered the hospital on the 25th of the above month. The skin appeared of a pallid and yellowish tint—headach —tongue furred—respiration a little impeded—pain and tenderness of the epigastrium when pressed—pulse full and quick. Tamarind water and infusions of mild herbs. 26th. Same state. 28th. Great prostration of strength—tongue encrusted—ten or twelve stools. 30th. Pain in the head—oppression—pervigilium—cold chills through the night. 1st. July, same symptoms, and same treatment. 6th. Delirium —constant agitation. Blisters to the legs—decoction of bark. 7th, 8th, 9th, and 10th. Same phenomena. On the last mentioned day, loss of voice—rattles in the throat, and other mortal symptoms. On the 11th, death.

Dissection. The vessels of the brain greatly gorged with blood—*the right hemisphere disorganized by a sanguineous infiltration, so that the natural substance of the brain could not be recognized.* Two table spoonsful of effusion at the base of the brain. In the abdomen some small tubercles were observed on the intestine of a reddish colour.

Thus, then, a youth, of 17 years of age, comes into hospital with unequivocal symptoms of cerebral affection, and nasal hæamorrhage. He is treated first with tamarind water,

and, as the symptoms increased, with decoction of cinchona. He dies, and one hemisphere of the brain is found completely disorganized (which is a mere bagatelle)—but "des petits tubercles d'une couleur rouge" are found on the intestines—and lo! the great French "doctrine pathologique" is confirmed! Half a brain destroyed sinks into insignificance, when compared with the tubercles on the intestines! Here it is evident that the practice was as injurious as the doctrine was erroneous. There cannot be a doubt that the youth was lost by the "medicine Hippocratique." At all events, no chance of recovery was given to the patient.

Case 3. William Loupart, 39 years of age, of strong bilio-sanguine temperament and constitution, was seized with smart diarrhœa on the 15th July, 1817, which lasted twelve days. 27th. General mal-aise, frontal cephalalgia violent, restlessness and pervigilium in the night. No alteration during the following days, although an emetic had been administered. Entered the hospital on the 3d of August, presenting the following phenomena, viz. great pain in the head, especially in the frontal and occipital regions—insomnium—face flushed and burning—tongue red and dry—breath fœtid—*no pain on pressure of the epigastrium*—anorexy complete—thirst insatiable, and craving for cold drink—stools scanty and bilious—urine ditto, and high coloured—skin burning hot, and dry—pulse full and quick—general feeling of fatigue. 4th. There was an exasperation of the symptoms this evening. *Edulcorated whey—two demi-lavements.* During the two following days no change in the symptoms, *Infusion of cinchona—camphor and nitre—blisters to the legs.* On the 8th of August, (12th day of the disease,) there was constipation, with inclination to vomit, somnolency, and slight convulsive movements. 9th August. The face more flushed than ever—cephalalgia exceedingly intense—the look fixed and animated—"in fine, all the symptoms of cerebral congestion." *Ten leeches behind the ears, sinapisms to the feet.* These measures, puny as they were, produced a mitigation of the symptoms. In this state the patient continued till the 17th of August, when a convulsive cough came on that threatened suffocation, but which was moderated by emulsions, &c. He went on again, without any remarkable change, till the 37th day of the disease, when the patient complained of sharp pain in the epigastric region, aggravated by pressure. *Eighteen leeches to the anus—warm fomentations to the abdomen.* Next day leeches (ten in number) were applied to

the hypogastrium and considerable abatement of all the symptoms followed for several days. But a relapse took place on the 42d day of the disease, and all the bad symptoms returned, accompanied by violent delirium, which lasted till death, on the 52d day of the malady.

Dissection. A considerable quantity of serous effusion into all the cavities of the brain, and between the membranes. The pericardium and bags of the pleura also contained large quantities of serous infiltration. The abdominal viscera appeared perfectly sound—yet, on attentive examination, some marks of inflammation, and even small ulcerations were observed on the mucous membrane of the stomach and intestines.

It is really astonishing that any man, not completely warped by the most inveterate prejudice, could think of putting this case down as an example of gastro-intestinal phlegmasia. Of all the marks of local inflammation left after death—of all the symptoms indicating topical phlegmasia during life, those appertaining to gastric or intestinal phlogosis are *least* evident. And yet they are placed at the head of the list, and the disease acquires "a local habitation and a name" upon such a frail and insecure basis! These cases, however, are very valuable in various points of view, as our readers will very readily appreciate.

Case 4. Stephen Christian, 22 years of age, strong constitution, was seized on the 22d August, 1817, without any evident cause or precursory phenomena, with shiverings and tremors, accompanied by cephalalgia, and followed by great heat of skin, and intense pyrexia. *Hot sugared wine* (vin chaud bien sucré.) Exasperation of the symptoms. During the three following days, bouillie, *and half a bottle of hot wine night and morning!* On the 6th of August, four grains of emetic tartar. Much vomiting and purging. On the same day he entered the hospital, presenting the following symptoms, viz. bad taste in the mouth—headach—insomnium—red spot on each cheek—lips dry, and tongue covered with a yellowish crust—breath fetid—some cough—anorexia—much thirst—skin yellowish—pulse small, frequent, and rather irregular.

7th August. Face flushed—eyes watery—headach intense—some pain on pressing the region of the liver—restlessness. *Infusion of bark.* These symptoms continued gradually increasing, and he died on the 13th of the same month.

Dissection. The brain was black with congested blood—the ventricles and the cellular tissue of the arachnoid contained a great quantity of serous effusion. The peritoneum. epiploon, and mesentery, were of a redder colour than natural—some portions of the mucous membrane of the intestines reddened and much injected, but not disorganized in structure.

We think there can be but one opinion on this side of the channel respecting the bad treatment in this case, and the want of any thing like evidence as to the priority of gastro-intestinal inflammation as the cause and essence of the disease.

FOURTH SHADE, OR "FIEVRES ATAXIQUES." BY M. PINEL.*

If, in the former shades, we have shown by the dissections and symptoms recorded by the author himself, that the brain was full as much implicated in the fever as the stomach or bowels, it is still more evident in the class of fevers now under consideration. In fact, the author balanced in his own mind, for some time, whether he would not treat of them under the head of "*inflammation of the membranes of the brain.*" Broussais, too, appears to be *hedging* a little; for he now introduces into his new nomenclature a class of fevers entitled —"gastro-enterites et *encephaliques*"—the policy of which is sufficiently obvious. But still the principle is too narrow. Observation will prove that there is no part of the body insusceptible of inflammation in fevers; and, on the other hand, that there is no structure exclusively the seat of phlogosis in this class of maladies. We will go still farther, and maintain our original opinions, that inflammation is not essential to fever at all—that it is not necessarily the first link or cause of the disease; but merely an epiphenomenon or casual occurrence in the course of the fever.

This ataxic fever is stated to be preceded by various phenomena, such as headach, somnolency, agitation, despondency, faintings, lassitude, and, in most cases, with symptoms of gastritis. Its duration is from two to four weeks. "In its *intermitting* form the danger is so great that we are obliged to suppress it, or change its character." Death is considered to result, in general, from the abdominal lesions. The convalescence is long and seldom perfect.

* *Adynamique* fevers are those where there is much muscular debility, as the name imports. *Ataxique* are those fevers which are considered *malignant* or irregular in their characters.

Passing over 26 cases of this fever which ended favourably, we shall extract, as an example, a single case where the dissection is appended.

Case. Fleuret, aged 30 years, entered the Clinique on the 20th October, 1818, presenting the following symptoms—cephalalgia intense—violent delirium—pupils dilated—cheeks a little flushed—tonge white in the middle and dry—respiration somewhat embarrassed—some pain in the right side of the chest—tenderness in the epigastrium on pressure—thirst —no appetite—some diarrhœa—pulse small and frequent—*whey and rice water—ten grains of camphor.* No more statement is made till the 31st, when blood is taken from the foot, and blisters applied to the lower extremities. On the 1st of November the agitation was extreme and constant. On the 2d, two leeches were applied to the jugulars---ice to the head---fresh sinapisms to the feet. 3d. and 5th. Diminution of the symptoms. 6th. Great delirium---face red---eyes watering---conjunctiva inflamed---tongue black---abdomen painful. *Tonic fomentations to the abdomen---lavement of camphor and cinchona.* These symptoms and this kind of treatment went on till the 14th of December, when the patient died.

Dissection. Brain extremely soft---ventricles full of water ---thoracic organs sound---mucous membrane of the stomach inflamed---some small ulcerations in the lining membrane of the intestines.

We have been absolutely astonished that, so late as the year 1818, when the doctrines of Broussais were at their height, a man presenting such unequivocal symptoms of congestions or inflammations in various organs, should have been treated in the manner detailed above, in a public hospital of Paris. Of what use are these grand pathological doctrines to their professors? They see the traces of inflammation after death—they record their symptoms during the progress of the disease—they affirm that these inflammatory lesions are the cause of the disease and the cause of the fatal termination—and yet, strange to say, they take not a single step to make their practice quadrate with their doctrines! It is, in fact, those only who look upon inflammation as a contingency in fever who are judicious practitioners. When they see the symptoms indicating local inflammation, they treat them accordingly—and their general plan of treatment is to prevent, if possible, such local inflammations taking place at all. The numerous cases and dissections which fol-

low are so near akin to that just now detailed, that we need not analyze any more. In a future number we shall probably take up the phlogoses of the *serous* tissues, and present our readers with some curious specimens of pathology and practice.

II.

Sketches in Bedlam; or, Characteristic Traits of Insanity, as displayed in the Cases of 140 *Patients of both Sexes, now, or recently confined in New Bethlem, including Margaret Nicholson, James Hatfield, &c. &c. To which are added, a Succinct History of the Establishment, &c.* By a CONSTANT OBSERVER. Octavo, pp. 312. July, 1823.

" See how the noble mind is here o'erthrown."

It is with the mind as with the body, there is scarcely an individual, at least in civilized life, who is in possession of perfect *sanity*, whether mental or corporeal. Every human being has his peculiarities or whims. When these become rather prominent they are termed eccentricities—and these again rising a few grades, assume the formidable appellation of insanity. In this last state the mind exhibits as great a variety of symptoms as the body under disease. One man is playful, harmless, and, we doubt not, superlatively happy in madness—fancying himself a prince or other great personage, and enjoying, in imagination, all the honours, without any of the anxieties, of exalted rank. Another is morose or taciturn, busied with schemes of various kinds which will never be put in execution. A third is furious, and endangers the lives of his neighbours. All these things, however, pass before our eyes every day in common life—but being only in a certain degree of intensity, they are not viewed as aberrations from soundness of mind. In such a place as Bedlam we see exquisite specimens of the human intellect in its widest divergencies from the common standard; the same as in a hospital, we see a congregation of the most remarkable diseases of the body. A faithful sketch of the inmates of one of these infirmaries for the mind, cannot be uninteresting to society at

large (however impolitic the publication of it) nor to the medical practitioner, whose duty and interest it is to study equally the phenomena of health and disease, in all parts and functions of the human fabric.

Old Bethlem, in Moor Fields, was built on the plan of the Royal Palace of the Tuilleries at Paris, which imitation gave such offence to the *grand monarche*, Louis XIV. that he ordered the plan of St. James's Palace to be taken for an office that shall be nameless! The present hospital is a noble pile of building erected on the site of the once celebrated DOG and DUCK TAVERN—a curious revolution, from scenes of voluntary madness excited by wine, to the straight-waistcoat and solitary cell of the present colony of maniacs! It is capable of containing 200 patients of both sexes, besides two wings for criminals, supported by Government, and calculated to accomodate sixty more. The asylum is supported partly by the Bridewell estates, and partly by voluntary contributions. The building and grounds occupy an area of about twelve acres. Physicians, Sir Geo. Tuthill, and Dr. Thomas Munro—Surgeon, W. Lawrence, Esq.—Apothecary and Superintendent, Dr. Ed. Wright. The patients rise every morning, in summer, at six, and in winter at seven o'clock. They breakfast at eight and half-past eight—dine at one—sup at six, and retire to bed at eight, when they are locked up.

In respect to treatment (moral) the grand principle is mildness, as being generally acknowledged the most fitting for the maniac. The breakfast throughout the year is wholesome gruel mixed with milk, and two ounces of bread. The dinner varies every day, and seems to average about half a pound of meat every other day, with good vegetable and farinaceous substitutes and auxiliaries in the intervals and on meat days. Excellent table-beer is allowed without any stint as to quantity. This, we think, is rather too liberal—for we have known many people get half-intoxicated, or muddle-pated daily by the use or rather abuse of this beverage. The clothing, bedding, and indeed all the other regulations, appear to be excellent in their kind. It is strange that, notwithstanding the excellence of this establishment, and the supposed increase of insanity, there are generally a considerable number of vacancies—"although the only qualifications for admission here are insanity and poverty." The disqualifications are 1st. The possession of property sufficient for their support in a private asylum—or affluent relations. 2d. More than 12 months duration of the disease. 3d. The having been discharged uncured from some other asylum. 4th. Pregnancy. 5th. Idiotcy.

palsy, or epilepsy. 6th. Syphilis or itch. 7th. Such debility from age as to require a nurse, or to threaten speedy dissolution.

A certificate from the minister, churchwardens, overseers, and a friend or relation, stating that the foregoing regulations have been read, and that the patient is not in any of the states or conditions therein specified, is required, together with a medical certificate from a physician, surgeon, or apothecary.

We now come to offer a few sketches of the inmates of this intellectual lazar-house to our readers, selecting those which are most interesting, and using all the brevity and terseness of language in our power.

1. PAT. WALSH. This ferocious maniac has been deranged altogether about 12 years, and has uniformly evinced a character of desperation, vengeance, and sanguinary cruelty, scarcely conceivable even in madness! He is more like a tiger than a human being. It is not improbable that a disposition naturally fierce and cruel has changed to insanity from the intolerable stings of a tortured conscience. It is sufficient to say, that this wretch was a ringleader in the mutiny of the Hermione frigate, in 1797, when the crew rose on the officers in the West Indies, and murdered them all except the surgeon and one master's mate. Notwithstanding all the precautions that have been taken, he has killed three persons since his confinement. How many he may have slain in honourable combat is unknown; but it is certain that after the horrible mutiny abovementioned, he fought along-side of Abercrombie in the battle of Aboukir, and Nelson in the battle of Trafalgar! The organ of *combativeness* ought to be strongly developed in this man.

One of the three murders alluded to, was committed in the present establishment. Having behaved well for some time, he was under no great restraint in April 1820, when he contrived to secrete the blade of an old knife, which he sharpened to a point, and watching an opportunity he plunged it twelve or fourteen times into the body of a poor sickly patient, named Dennis Leonard, with such force and fury that each stab would have killed a giant. After this he was hand-cuffed, but broke them into a thousand pieces. He is now confined in an iron cincture that surrounds his waist, with strong hand-cuffs attached to it.

"But his propensity to mischief, malice, and personal abuse, are as incessant as his taste for blood-shed and slaughter. He has contrived, notwithstanding his restriction of hands and feet, to break above seventy panes of glass, within the last two years, in the dining-room windows, although guarded on the inside by a strong iron wire lattice-work. This amusement he contrived to effect by standing on a form

placed at some distance from the windows, and taking the bowl of his wooden spoon in his mouth, he poked the handle through the meshes of the wire-work, and thus broke the pane." 7.

Bloodshed and massacre are the constant topics of his frenzied discourse. His vengeance against poor Leonard was excited by some dispute about *Religion!* He told the coroner's jury, that if he could obtain the king's crown, and all the riches of the universe, he would not forego the pleasure of killing him, for all would be nothing to the ease of mind he felt in putting him out of the way!

"Even his very dreams, when he sleeps, are occupied with scenes of fury and vengeance; and he takes delight in detailing them the next morning. When he dreams of having murdered any, and sometimes all of the patients above named, he wakes quite pleased, and details the scene with much satisfaction; and the manner in which he has gratified his vengeance, and what fine fun he had in seeing them die. He thought he had a sword, with which he first cut all their throats, and then walked round them to see which should live longest; that when they were all dead, or nearly so, he split their skulls, and then transposed the brains from Hallwood's head into that of Lloyd; Lloyd's into Coates's; his to Jenkin's; his again into the Spaniard's, and his again to Hugh Dams's. He then ripped up their bellies, and changed their entrails in like manner; and then he hung and burned them all: but the only thing that grieved him was to hear them all talking in the gallery next morning. He stamps and raves most of the day, and nearly all night, with a piece of blanket crammed into his mouth, gnawing and tearing their souls out, as he imagines and terms it. He picks up pieces of glass, old nails, bones, and spoons which he grinds to a point, stones of a convenient size for flinging, and indeed every thing that is likely to enable him to do mischief, to which he is always inclined if he has an opportunity." 9.

There is a Greek confined in the same place, and nearly as furious as Walsh. The scenes that pass between these two, though at a distance, are terrific. The great wonder is, that Nature should be able to sustain such dreadful conflicts in the breast, with so little apparent effect on the corporeal fabric.

2. HATFIELD. This is the man who fired at His Majesty in Drury Lane Theatre, in the year 1800. It is curious that he was incited to this act by a fanatic who now inhabits the same asylum. Wounds which he had received in his head in the public service appear to have laid the foundation for his mental alienation, when he was persuaded to attempt the king's life to fulfil a prophecy of Bannister Truelock, a monomaniac to be noticed presently. This man, for a long time past, has evinced no symptoms of insanity; but his mind is soured, and he is discontented with every thing around him. Being a state

prisoner, he will, of course, continue in his present abode for life.

3. Truelock. This man, who was a shoemaker, having taken it into his head that the Messiah was to proceed from his mouth, in the same way that Johanna Southcote was to produce him from the uterus, persuaded Hatfield that the only obstacle was the king, who was first to be despatched. He is a most singular character, and betrays no symptoms of insanity, unless the subject of Religion is touched upon, when adieu to all reason.

4. Mr. Thomas Lloyd. This unparalelled compound of cunning, pride, wit, impudence, lies, filth and frenzy, was formerly a corn-factor in Mark Lane, and furnishes perhaps the most remarkable character that the annals of Bedlam are even doomed to record. A whole volume could scarcely contain a tenth of his eccentric operations from day to day. We cannot attempt to convey any idea of this non-descript lunatic to our readers. We shall only introduce a single extract as a sample.

"In the universality of his genius, he considers himself the most sublime poet that ever courted the muses, and whenever he can procure a scrap of paper, he proceeds to compose verses; but as those extemporaneous productions do not usually please his critic fancy, he converts them to ingredients in his gruel at breakfast, probably to enrich the soil of his genius for a new crop of heroics. This gruel is the common receptacle for a much greater variety of articles than usually go to the composition of turtle soup. He puts all his verses into it to cleanse them, as he says; and with a selection from the before-mentioned articles from his bosom, cheese from his snuff-box, butter from his tobacco-box, the exhausted quids from his mouth, sometimes the portion of another article that shall be nameless, bits of leather, small stones, pieces of bone, coals, &c. thus this *epicure* makes up for himself a relishing mess, somewhat akin to the hell-broth of Macbeth's wizards, and setting all German cookery at defiance. In this filthy system of culinary composition, however, he affects to proceed on scientific principles. Leather clarifies it; stones purify it; coals mineralize it; one article acidulates it; another gives it an alkaline virtue; a third, a high flavour. This molifies it, that dulcifies it; the whole together makes it a delicious mess, and he swallows it with the *goût* of an Apicius. Sometimes his beer is enriched with part of the same ingredients; and though such is his daily practice, his health is not injured by it." 32.

5. Lieut. Traile. We are next presented with a melancholy contrast to the facetious and satirical Lloyd. Mr. Traile served, during the late Peninsular war, as lieutenant in the 95th regiment of foot, with honour and reputation as a gentleman and an officer. At the peace he was placed on half-pay, and

his mind soon afterwards became engloomed, partly from religious enthusiasm, and partly from imaginary apprehensions. He now became insane on a single point. He had a horror of death from poison in his food. He consequently came to the resolution of refusing all nutriment. Mr. Lawrence and Dr. Wright kept him alive for some time by forcing liquid food down his throat through a tube. On the 31st of March, 1822, he contrived to hang himself by means of his neck-handkerchief fastened to the wire-guard over the door. Thus he illustrated a very curious pathological fact in the history of insanity—namely, *suicide from fear of death.*

6. William Holwood. It is very astonishing what exertions and apparent—we might say real—sufferings will be borne by those affected with *nervous* diseases, and yet without the constitution experiencing any material injury. Instances of this kind must be familiar to every experienced practitioner—and they are constantly leading the younger branches of the profession into false prognosis and unnecessary alarm. The maniac above mentioned is an example. He is incessantly in action, night and day, "and yet it is astonishing how he has sustained so much exertion for so many years." He never seems exhausted—knows not what illness is—and appears at all times in robust health.

7. John Williams. We only notice this case to express our approbation of some sensible observations of the anonymous author of the work before us, relative to the order of the Board at Bedlam, that forbids the sale, and consequently the use of tobacco among the insane.

"There can be no question that the forbidding this article is founded upon the best intentions; but there are many of the patients here who, from habits of ten, twenty, thirty, and even forty years' use of tobacco, in some shape or other, have contracted such an insuperable attachment to it, that they would much rather go without dinners than their beloved quid. Others prefer snuff, and those patients who have been long used to it are always discontented, fretful, and peevish, if debarred this comfort, either through the want of money to purchase, or the neglect of their friends to supply them with it. There seems to exist in the use of tobacco, as well as in madness, a pleasure which none but the infatuated know: and, trifling as the privation of those little enjoyments seems, it revives in the memory of the patients a sense of former grievances, gives them an idea that they are quite forsaken, renders them irritable, and has sometimes very injurious effects." 78.

8. George Woods. This unfortunate gentleman was a surgeon, and consequently excites our sympathy in an unusual

degree. His hallucination was, that he had undergone the fate of Abelard, and this loss was the subject of lamentation night and day. If any thing could excite our risible faculties, when such a melancholy subject as the loss of human reason is the topic, it is a scene which passed between poor Woods, his keeper, and a peeress who happened to be going round Bedlam in company with other ladies.*

This poor fellow, in allusion to the supposed loss of his testes, was constantly exclaiming, "oh! my ——! what shall I do for my ——! they are gone! gone! for ever!"

"The lady, unable to comprehend his meaning, applied for explanation to the keeper; who, with some discreet presence of mind told her ladyship that the poor patient was in the habit of collecting a quantity of pebbles, flints, and other rubbish about the airing ground, which he fancied to be emeralds, rubies, diamonds, and other precious gems; that it became necessary to take them away from him, in order to prevent the accumulation of such rubbish in the gallery; and that a recent privation of this sort was now the subject of his lament. 'Oh, poor man,' said her ladyship, turning to the patient, 'never mind them! When his lordship comes here again, he shall bring you some pretty ones which he has got at home; they will be much handsomer than those you have lost: so don't fret about them any more." But poor Woods, not at all satisfied with the promised alternative, answered with much displeasure 'that won't do! I will have none but my own.' And thus they separated, each unconscious of the other's meaning." 115.

9. James W—l. We shall conclude our extracts with a passage from the case of this young gentleman, who was discharged cured in February 1822.

"The character and symptoms of this patient's disorder were extremely curious and singular. When the paroxysm came on, however he happened to be situated, his whole frame from head to foot became stiff, as if all his joints and muscles were ossified. His eyes, though staring open, became fixed, and he foamed at the mouth. If sitting or walking when his fit came on, he would instantly fall to the ground, generally extended at full length on his back, with the same symptoms of rigid stiffness and insensibility: his eyes, open and inclined upward, were insensible to the touch of a hand passed over them, which did not produce the slightest wink. No symptom of animation remained, with the exception of breathing; but this so faintly as to be scarcely perceptible. His condition in all other respects resembled death; and in this state he would sometimes continue for one, two, three, and even four days without any apparent change. He could not be induced on those occasions to eat or take any kind of sustenence;

* By the way, we think Bedlam a very unfit place for the visitations of our wives and daughters. They should be prohibited from beholding such scenes, and listening to such dialogues.

except, under the direction of medical gentlemen, when rich broths were passed by injection sufficient to sustain nature: but of this he seemed quite unconscious. During the fits his whole person was literally as stiff as a plank, and he might be raised to a perpendicular, and carried from place to place like a ladder, without the least appearance of flexibility Towards the termination of those paroxysms, when a hand was passed over the eye-balls they would sometimes move, which was a prognostic of his recovery: and on being roused from his stupor, he recollected nothing of what had passed; but he would speak of dreams, visions, heaven, hell, and the strange things he had seen, at least with 'his mind's eye.' Visions which, with the fanatical disciples of Hannah Southcote, would have stamped him a sealed prophet, and sanctioned as divine revelations the wild dreams of his disordered fancy. After those fits he always appeared weak and dejected." 157.

Here we must conclude our notice of this work, having given our readers sufficient specimens of its nature and execution. We have one or two remarks to make in parting with the anonymous author. We much question the propriety or the right of thus publishing the name, histories, and unfortunate conditions of the inhabitants of this asylum for the wreck of human intellect. We have been told that the author is not attached to the establishment; but we are convinced that no mere visitor could have collected such a mass of authentic names, dates, and minute circumstances, without *assistance* from some of the residents. The publication, then, we deem a breach of trust of a very reprehensible nature, not only as exposing to public curiosity what ought not to be blazoned to the world—but as tending to injure, or at least curtail the utility of the excellent establishment which the author has so much and so justly praised. Few people will like to send their friends to a place where their histories may probably be taken down and committed to the press. Neither can we commend the tone of levity, and the sallies of wit or humor which pervade these "Sketches in Bedlam." The loss of reason is no joke; and although the poor lunatic may laugh at his own degraded condition, we deem it bad taste in the bye-stander to join in the jest.

III.

Transactions of the Associated Apothecaries and Surgeon Apothecaries. Vol. I. 8vo. pp. 640. Burgess and Hill, London, 1823.

[First Analytical Article.]

We are right glad to see this first volume of a periodical repository springing from a base that can hardly fail to furnish ample materials for an annual contribution to the general stock of medical knowledge. The education, professional and scholastic, of the general practitioners is now secured at a standard far above what it ever was before, and perhaps high enough for all practical purposes, and for the great mass of that most useful and hardworking class of medical society. We apprehend that in civilized life, such as it is now constituted, there must always be, in cities and populous towns, a division of labour in the healing as well as in other arts. When the life of man is in jeopardy, the patient and the friends of the patient will grasp at every ray of hope, and will therefore have all the advice which the place or their circumstances can afford. Hence the physician and the operating surgeon must come in for a share of practice in dangerous, and often in trifling cases, be the talents, the experience, or the education of the general practitioner what they may. The elementary education of this last class of medical men, now so much better than formerly, (when the dispensing of medicines was almost their sole employment,) joined to the wide field which they have for observation, must bring all the more talented portion of them on a very near par indeed with the physician. It is in this mixed practice, in fact, where diseases are seen from their earliest stages, and where the effects of remedies are hourly witnessed, that the most solid and useful knowledge can be acquired. Were these advantages unalloyed, the general practitioner would distance the physician on all points of medical science, and the latter class must soon disappear entirely. But the advantages abovementioned are not without their accompanying drawbacks. The harassing life of the surgeon-apothecary—his broken rest—the multiplicity of his pursuits, (physic, surgery, midwifery, pharmacy, accounts, &c. &c.) and the absolute want of *time*, render it morally impossible that he

can reflect on, compare, arrange his observations, so as to reap from them all the advantages which they are capable of yielding. The human mind, in short, is so limited—the range of science so extensive—life so short, and its cares, anxieties, and necessary avocations so numerous, that none but the highly gifted few can overcome these difficulties, and shine at once in the three great departments of the healing art.

But the surgeon-apothecaries, from the circumstances and for the reasons now stated, are peculiarly well qualified to supply the most valuable and important data on which to ground principles that may ultimately erect medicine into a science approaching to the exact. And if they will but confine themselves to the recording of facts, and to plain observations on those facts, without prematurely framing and wire-weaving hypotheses, they will confer incalculable benefit on science, and ensure the thanks and the veneration of posterity. A work like the present only wants a beginning and publicity to ensure it success—not only in the supply of materials, but in the circulation of them afterwards. It is a duty incumbent on the class of practitioners in question, however, to give timely and efficacious support to the undertaking by contributing communications and encouraging the sale of the volumes as they appear. If they prove lukewarm on *either* of these points, the enterprize is lost. Even if ample materials poured in, the *common sale* of the work will hardly defray the expenses of publication, without the vigorous patronage of the general practitioners. That such patronage will come into action on the appearance of this work we have reason to infer from the burst of encouragement which attended the debût of the London Medical Repository a few years ago. That Journal, contrary to the usual progress and order of things, rose all at once to a high—in fact, to its ultimatum of circulation, an occurrence unprecedented in the annals of periodical literature. True it is, that there existed a fervour of feeling among the general practitioners of 1813, which a lapse of ten years has almost entirely cooled. But we think that to give encouragement to the present undertaking there is no necessity for fervent party spirit, but merely a practical application of laudable zeal to uphold the character and call forth the talents of the profession in general, and of the surgeon-apothecaries in particular.

And now, having done our duty in calling the attention of the class in question to what is essentially their own interest, we shall proceed to make the public at large acquainted with the nature and contens of this primogenitur[illegible] hope

will be followed, at regular periods of gestation, by a long line of healthy and vigorous offspring from the same parent stock.

ARTICLE 1. *An Essay on the Education and Duties of the general Practitioner in Medicine and Surgery; containing Suggestions relating to the Investigation of Disease, and the Registration of Practical Results.* By THOMAS ALCOCK, Member of the Royal College of Surgeons in London.

There are perhaps few practitioners in medicine, whether physicians, surgeons, or surgeon-apothecaries, who have more diligently and successfully cultivated the various branches of medical and other sciences than Mr. Thomas Alcock. This gentleman is one of the favoured few, whose minds are capable of embracing a range of knowledge far beyond what the general run of minds can grasp. In laying down rules therefore for medical education, he has probably calculated by a standard of talent, zeal, and industry, which will be found far too high for general example or imitation. This has been the case with all who have written on the subject of medical education. We appeal to the lucubrations of the late Dr. Beddoes for an illustration. Since the publication of that gentleman's sentiments we dare venture to say that not a single practitioner has gone through the discipline which he represented as necessary for practising the healing art. But it may be said that, by placing the standard high, we give scope to men of all capacities for imitation. Let us suppose that a very tempting apple was suspended from a branch, at such a height that a very expert rope-dancer might, by the utmost exertion of his agility, hope to seize it: is it very likely that the clumsy clowns of the neighbourhood would try more than one or two springs at the object so far above their reach? The application of this simile to the subject in question is sufficiently obvious. General rules should be adapted to the general capacity of mankind. Exalted talents and powerful genius will neither heed nor need them. We shall now, however, endeavour to concentrate some of Mr. Alcock's observations and suggestions on the important subject in question.

We agree with our author that the investigation of diseases requires previous culture of the mind—and also that the acquired powers of the mental faculties resulting from judicious culture "are of more value in the every day concerns of life than the greatest distinctions which Nature usually confers on individuals of the same species."

We apprehend that there is also much truth in the following observation, though it is contrary to popular opinion in general.

"It is not an uncommon error for parents to remain indeterminate regarding the choice of a profession or mode of life for their children: the choice is frequently left to the children themselves, who cannot be supposed to possess the necessary experience to enable them to determine what is really best; they, therefore, often select a profession from some showy and unimportant appendage to it, and never think of the evils inseparable from their choice, until it is too late to benefit by the knowledge. Were parents to determine this point for their children early in life, the mind might, by due care and cultivation, be adapted to the pursuit, so as to ensure a higher degree of excellence than is usually attained." P. 3.

It would be desirable, as Mr. Alcock remarks, that the studies and even the amusements of the youth, designed for the medical profession, should be calculated to improve his powers of observation, of reasoning, and of patient persevering exertion.

"In addition to the ordinary routine of school education, which should comprise grammar, English and Latin, (and Greek, if time permit,) arithmetic, geometry, drawing &c. every subject of instruction should be perfectly understood by the pupil as far as he has advanced. The writing of a good current hand, accurately and expeditiously, cannot be too sedulously attended to, as indistinctness of character in writing, either in prescribing or in writing directions, may lead to dangerous or even fatal error. The cultivation of a small garden is well calculated to promote industry, patience, and observation; for the preparing of the ground is a necessary preliminary to sowing the seed; and the seed, when sown, does not appear to germinate till after a period more or less remote; whilst the daily attention which various plants require, brings to notice many of the phenomena of vegetation which might otherwise escape notice. The arranging of mineralogical specimens may also serve to promote accuracy of observation. An intercourse with the more simple and useful arts and manufactures will also greatly assist in improving the powers of observation of the young pupil. Occasional exercises in mechanics, in making experiments or models, and in describing accurately the natural or artificial productions which he has observed, will prove useful. But it must be obvious, that however desirable it may be to promote intellectual improvement, yet to form the character of the individual to virtuous habits, to self-control, to unwearied beneficence to others, is an object of still higher importance. The character of Alexander must give way to that of a Howard, who may be pointed to as an example worthy of imitation." 8.

Arrived at the age when school discipline usually terminates, the selection of a master for the youth, is a matter of no small moment. He ought to possess good common sense, a fair share of general and scientific knowledge, and an ardent zeal for the improvement of his profession by all honourable means "He should not be too young; for early age and inexperi-

ence go hand-in-hand: yet, in advanced years, although there may be a large share of experience, that zeal is past which induces the preceptor to share the studies of his pupils, and which is perhaps the most certain mode of ensuring their improvement." Great diversity of opinion has obtained respecting the value of a medical apprenticeship—some denouncing it as time lost; while others consider it as indispensably necessary, and very profitable. There may be foundation for both opinions. With some masters the time is undoubtedly lost, or nearly so, unless the pupil be possessed of more than ordinary prudence and disposition to study—but with others, the period of apprenticeship (were it not to extend beyond three years) might be profitably spent. Mr Alcock makes some pertinent remarks on scholastic education; but they appear to be misplaced in a work of this kind:—they should be addressed to those who can rectify the evils complained of, through the medium of some public print of a miscellaneous nature. Here Mr. Alcock enters into minute directions for the conduct of the young apprentice, in weighing out and compounding his medicines, writing clear directions on the labels, studying the materia medica, arranging his pocket instruments, dressings, apparatus for *post mortem* examination, &c. all which may be perused with great advantage by the tyro. The following passage we recommend to the attention of the master.

"It has been a general rule to require from my domestic pupils a written report of every dissection at which they were present, as a sine quâ non of their attendance, and that the report should be delivered to me within the twenty-four hours next ensuing. At first, as might be expected, these reports were very imperfect; but, as by repetition the subject became better understood, they gradually improved. The imperfections and occasional errors were pointed out, and sometimes the statement which I had made for my own use was referred to, to show the omissions in those of the pupils, and farther that they should be aware that it was their welfare, and not my convenience, which made me exact the strict performance of this exercise." 21,

The plan Mr. Alcock has found to succeed best was to avoid teaching too much at once, and to endeavour to make the little taught well understood. Thus, in opening bodies, "the alimentary canal may form a first lesson, naming the parts simply without any reference *to technical jargon*." We really do not understand how the parts of the human body can be better taught in simple than in technical terms. Would Mr. Alcock begin thus—the gullet, (not œsophagus)—the paunch, (not stomach or ventriculus)—the twelve inch gut, (not duodenum)—the empty gut, (not jejunum)—the gut like an eel, or twisted

gut, (not ileum)—the dung gut, (not colon) the straight gut—which, by the way, is a very crooked gut, (not rectum.) Thus, instead of simplicity, we would have vulgarity—and instead of classical and concise terms, we should have inelegant and butcher-like phrases. We make this observation, because Mr. A. seems to sneer, in many places, at scholastic terminology and arbitrary distinctions, without which the study of medicine would be difficult, and its literature barbarous. Mr. Alcock goes on through many pages, describing the minutiæ which the master is to be constantly overlooking in the progressive steps which the pupil is making in all the different branches of the profession. But we appeal to every surgeon-apothecary in this kingdom, who has a common run of practice, and a wife and family to attend to, whether one-tenth of the discipline which Mr. Alcock proposes can be superintended by the master? Can such domestic homilies as the following be reasonably expected after a man comes home jaded, fatigued, and care-worn with the daily duties of his profession?

"I have known the master join in a family circle, in evening amusements calculated to improve his pupils, on a footing of perfect equality. Each took a subject of elementary knowledge which he had previously studied, and communicated it to the others, in the form of a short and familiar lecture The communication was guarded from interruption; but as soon as it was finished every one in turn was permitted to ask questions relating to the matter, or to supply any illustration that might have been omitted. One of the juniors acted as secretary, and registered the results of the discussion. The exercise was both delightful and profitable." 28.

Now this is all very well for Mr. Alcock, whose *family circle* consists entirely of his pupils. But if he had a wife and half a dozen children, he would find the business different. Mr. Alcock should have consideration for his brethren, who have neither the time, the talents, nor the means of making themselves not only the masters, but also the private tutors of their apprentices. Many young men will read the system of education proposed and acted on by our author—and most of them must draw comparisons by no means favourable to their masters. We do not say that Mr. Alcock's plan of medical education, during apprenticeship, is Utopian, as far as he himself is concerned; but we appeal to the general sense of the profession, whether it is not Utopian for nineteen-twentieths of his brethren? This, in fact, was represented to Mr. Alcock before the MS. went to press. "A friend, to whom the preceding observations were shown, objected, that such a plan of instruction would require the sacrifice of nearly the whole time of the

teacher." And truly so it would. It is in vain that Mr. Alcock assures us, "from experience," that this is far from being the case. He draws from the experience or example of an individual, and consequently his precepts are inapplicable to the great mass of general practitioners.*

Mr. Alcock thinks, that the advantages of attending lectures, during apprenticeship, have been much over-rated. He has always, however, permitted his pupils to attend anatomical lectures and dissections previous to the expiration of their apprenticeship. Surely it would have been equally as desirable that *chemical* lectures should have been attended to in that period, since they store the young man's mind with knowledge which is every hour put in requisition in his daily employments. We agree with our author, that the plan of allowing the youthful pupil to commence the whole routine of lectures and apprenticeship at the same time, will generally fail—especially if he be designed for a surgeon-apothecary. In the case of some of his friends under this plan—

"The pupils have wasted their time, and, after repeated courses, have remained ignorant of the most simple principles of medical science: whilst habits the very reverse of diligence, were established." 33.

The apprenticeship over, the elementary education of hospitals and public lectures becomes an important subject of consideration The following picture deserves attention, and contains unpleasant truths.

"The prevailing error, with many students, seems to be, to consider the passing of examinations as the great object to be aimed at, rather than the acquirement of that knowledge without which they cannot perform the duties of an arduous profession with honour to themselves and with benefit to their patients.

"A student arrives from the country, after having served an apprenticeship, with opportunities of gaining professional knowledge, more or less limited, according to the circumstances in which he has been placed He arrives in the metropolis with a determination to remain one year, and to pass his examinations at Apothecaries' Hall and at the College of Surgeons. He makes inquiry, and finds that the examination at Apothecaries' Hall requires certificates of attendance on two courses on anatomy and physiology; two courses on the theory and practice of medicine; one course on chemistry; one on materia medica; and six

* That Mr. Alcock has practised every thing he preaches we have the very best reason to know; and such is the high opinion which we entertain of this gentleman's talents, acquirements, and integrity, that had we a son to put out as an apprentice to-morrow, there is not a man within the whole circle of our acquaintance, (which is not very limited,) whom we would put in competition with Mr. Alcock as the master, guardian, and preceptor of that son. After this sincere declaration, Mr. Alcock cannot surely apply our strictures to himself personally, but to the too rigid system of instruction which he would impose on those who have not his talents to perform them.—*Rev.*

months on the medical practice of a hospital; lately, I believe, restricted to the certificate of some branch of the College of Physicians in London—total, six courses and six months' medical hospital attendance. The College of Surgeons requires now three courses on anatomy, and twelve months' attendance on the surgical practice of a metropolitan hospital. *No country hospital!* Lectures on surgery are required: but the number of courses is not stated, say two. The total for the year's employment will stand thus:—

For Apothecaries' Hall - -	6 courses.
For College of Surgeons -	5—2=3
	Total 9 courses;

and six months' medical and twelve months' surgical practice, without any allowance being made for practical dissection, or for midwifery.

Leaving Sunday out of the calculation, let us examine the time these courses of instruction occupy.

Anatomy.—Lecture from one to two hours, according to the custom of the school	say 1½
Demonstration - - - - - - - - -	1
Practice of Physic - - - - - - - -	1
Chemistry - - - - - - - - -	1
Materia medica - - - - - - - -	1
Medical practice - - - - - - - -	1
Surgical ditto - - - - - - - -	1
Lectures on surgery twice or thrice a week - - -	½
Total	8

This calculation does not include the necessary time lost in going from place to place, which is very considerable, nor that which must be taken for meals; so that from eight in the morning till dusk in the winter months, does not, without some of the above being omitted, afford one single hour for practical dissection, for midwifery, botany, or any other accessory branch of science; or for what is essential to form a sound judgment, viz. for reflection of what has been seen and heard. Some teachers of physic, knowing the importance attached by students to passing examination at the Hall, kindly condescend to *cram* their pupils for an additional hour daily, under the name of examination. So much does the taste for this parrot-like exercise prevail, that the majority of pupils would rather absent themselves from any or all of their other pursuits, than be absent from this delectable treat. During the short interval allotted to what are called the summer courses, the time may not be so fully occupied; but the heat of summer does not constitute the most favourable time for dissection; nay, at the schools of anatomy connected with the larger hospitals, no lectures on anatomy are delivered during summer, neither are the dissecting rooms open. To hurry, thus, through a course of studies, if studies they may be called, as too frequently happens, is not less absurd than the attempt to fill a sieve with water, in which the more that is poured, so much greater is the rapidity with which it escapes." 36.

With so imperfect a foundation it is indisputable that many young men return to the country with little more than the merely nominal qualifications of a surgeon and apothecary; but it is to be hoped that this confined and deplorable plan is

fast falling into disrepute. From the foregoing observations it may be gathered that Mr. Alcock does not consider one year sufficient for the London studies of a young man let loose from his apprenticeship—unless that apprenticeship has been conducted in the manner recommended by Mr. Alcock, which we may safely venture to affirm will never take place out of Mr. Alcock's own house. But even under the most advantageous circumstances our author does not recommend so limited a period as one year. "The arrangement should be made for *at least* two years, whether these years be in immediate succession, or separated by an interval, during which some share of the responsibility of practice may be entered upon, or the mind expanded by the acquisition of general knowledge."

Mr. Alcock justly observes that anatomy is the ground work of all. The student, therefore, should not only begin early to dissect for himself, but he should become master of osteology before he comes up to town at all. This, any youth, with the bones and Monro's description of them, may easily do. Mr. Alcock recommends the student to get early into the habit of sketching the bones—a practice which compels to a more accurate inspection of them than would otherwise take place.

Osteology completed, the student should take an extremity, and dissect at first, with reference to the bones and muscles only. Every muscle dissected, should be compared with its description in some good work, and every attachment should be traced with care. Plates will assist him when at home—but they are very imperfect auxiliaries. For other minute directions in the study of osteology and myology, we must refer to Mr. Alcock's paper. The knowledge of the internal viscera is now to be attained, or rather improved; "for if the apprenticeship have been fairly conducted, these viscera must have been well understood in *all essential points*, although the *minutiæ* may have been passed over." Does Mr. A. mean by this that a knowledge of the *minute structure* of the viscera is not among the *essential points* of information in anatomy? without knowing, at a glance, the minute healthy structure, pathology can never afterwards be studied with advantage; and we ask if, under ordinary circumstances, the apprentice of an apothecary can be expected to acquire a knowledge of the minute structure of the internal organs?

Mr. Alcock gives many judicious and admirable instructions on the mode of conducting the anatomical studies, which deserve the student's best attention, summing up the arrangement as follows:—

"The general arrangement for the first season will be confined to—
Anatomy and physiology, the chief object.
Natural philosophy, as recreation.
The dissections will stand thus:
Half of a subject for the bones, muscles, and joints.
Ditto for the injected arteries.
One small subject for nerves.
One entire head and neck for injected veins, &c.
Half subject for full dissections, without injection.
"The internal viscera may be examined in each subject.*
"The time may be stated as *at least* four hours per day, six days in the week.

"For the study of the bones, before the commencement of dissection	four weeks.
For the muscles, ligaments, and joints, allowing a fortnight for the head and neck, and the same for each extremity	six weeks.
For the injected arteries	six weeks.
For the small subject for nerves	two weeks.
For the injected head and neck	two weeks.
For the full dissections, without injection, allowing three weeks to each division, as above	nine weeks.

"Total, twenty-nine weeks, leaving three weeks for the dissection of the internal viscera, the organs of sense, &c.

"The day work will stand,

For practical dissection, and making studies from dissected parts	4 hours.
For attendance on anatomical demonstration	1 hour.
For anatomical lecture	1½ hour.
For reading, arranging tables, &c.	2½ hours.
	9

"Total, nine hours, exclusive of lecture on natural philosophy, one hour twice a week." 48.

On this arrangement we would take leave to remark that, excepting under very peculiar circumstances where the student had three or four years to dedicate to elementary matters, nine hours a day, for the whole of the first season of 32 weeks, is too great a proportion of time for anatomy alone. Nor do we think this plan very consistent with the preservation of health, in a young man just arrived from the country, and spending six hours and a half daily, among the putrid exhalations of a dissecting room and anatomical theatre. Few ever prosecuted their anatomical studies with more enthusiasm than the writer of this analysis; but his health was materially injured by an application of four hours a day to dissection, though his constitution, at that time, was vigour itself. We believe, that if three or four hours daily are dedicated to anatomy, and that continued through every session of attendance in London, there will be more knowledge acquired at a smaller sacrifice of health, than on the plan which Mr. Alcock has laid down.

* "The expense will be somewhat less than that of two entire subjects."

Mr. Alcock advises, (and we think the advice judicious,) where time will permit, that the student should go into the country during the summer, rather than prosecute his studies through the dog days of London. In the country he may study botany, (but Mr. A. has not yet allowed him to attend any botanical lectures,) and recruit his anatomical and physiological memory by the aid of books and plates. In recommending the medical student to make himself familiar with mechanical operations, and edged tools generally, our author takes occasion to deplore the awkwardness and clumsiness of surgical operations "compared with manipulations in other arts." He instances a surgeon, who set about sawing off a leg, the saw being defective, "owing to the teeth not being *set*;" in consequence of which, the saw became jammed in the bone, and, like a restive mule, would neither move backwards nor forwards. If we remember right, the principle of surgical saws is, that the blade shall gradually become thinner from the teeth towards the back, which simple principle completely obviates the danger of the instrument getting jammed as it proceeds to any depth in the bone, even if the teeth are not set off obliquely from the plane of the blabe. Both precautions, however, are best.

The summer over, and the pupil returned, a severe course of clinical study is to be commenced. Mr. A dissuades from taking notes during the first season. To us the propriety of taking notes at any season is very doubtful. It was our own practice to go directly home and write down an epitome of the lecture from memory. By this plan three useful objects were attained. In the first place we lost no portion of the lecture from the distraction produced by taking down notes. In the second place, it induced a habit of accurate *attention*, the very basis of memory. In the third place, it induced a turn for concise and terse composition, which has been of no small advantage to use in after life. Having given minute directions how to take notes after the first course, Mr. Alcock concludes with the following observation, which certainly does not hold out much encouragement to the practice which he had just been recommending.

"But he who lays a solid foundation in elementary studies, will find that though his shelves may be filled with his volumes of manuscript lectures, which bear honourable testimony of his diligence; *yet years of practice roll away without his ever finding it necessary to refer to them*; whilst the reminiscences drawn from his own actual observation of disease, give him a well-grounded confidence, which mere lectures and the lessons of others can never impart." 55.

Chemistry is now to be entered on, and much deserved eulogy is heaped on that delightful science. We think, however, that throughout this paper there is too much prosing illustration, of a kind that might be very appropriate for domestic and familiar instruction to pupils, but which becomes rather tedious in a didactic composition addressed to the profession at large.

After eulogising the excellent lectures of Mr. Brande, (which indeed are above all praise) the expertness of Mr. Farrady, and the admirable apparatus of the Royal Institution, Mr. Alcock goes on to the praises of another distinguished ornament of the profession, who has ever stood high in our estimation. In our humble opinion, however, friendship should be temperate in its eulogies, lest it injure the object designed to be benefited. Those who are best acquainted with the actual state of medical knowledge, will hardly believe that even the genius of an Armstrong (and we admire his genius) has yet reduced medicine to "a *demonstrative science.*"

"The theory and practice of physic have been too long disgraced by *technical jargon and artificial distinctions* which do not exist in nature, and which, to say the least of them, are useless at the bedside of the patient. To attain correct elementary ideas of the nature of disease, is of the highest importance, as in a great degree influencing the future usefulness of the medical practitioner; and without disparagement to other lecturers, I may be permitted to observe, that the zeal and ability which have characterized the labours and raised the reputation of Dr. Armstrong, have never been more successfully exerted than in his lectures.

"These lectures go far to reduce the theory and practice of medicine to the simplicity of a *demonstrative science*, and to substitute accurate observation in the place of vague hypothesis; and if the minds of the pupils be duly prepared by adequate elementary education, to profit by these excellent lessons, which contain the results of Dr. Armstrong's unpublished practice, the benefits they are designed to diffuse cannot fail to be realized." 58.

Knowing, as we do, the talents and observation of Dr. Armstrong, we cannot but strongly recommend his lectures to the attention of the student, and hope that no private emolument will prevent his soon laying before the public at large the substance of those lectures; for we believe that medicine is any thing but a demonstrative science in the hands of others.

Mr. Alcock inclines to a reprobation of the cruelty exercised in experimenting on animals. We honour his feelings, but we cannot quite participate in them. We have no idea of a sentimental lachrymation over a decapitated rabbit, while the poor turtle is kept three months *dying* on his back (without the least commiseration) under a tropical sun to glut the paunch of a luxurious alderman.

Speaking of the neatness and dexterity which a student should endeavour to acquire in bleeding and other subordinate operations, Mr. Alcock adds—

"It is not twenty-four hours since a medical friend adduced an instance which occurred a few days ago. He had witnessed the dissection of a patient, who had gone to an hospital to be blooded, and who had died in consequence of that simple operation. *This fatal termination, he observed, could only result from extremely bad management;* the unfortunate patient left a widow, without the means of supporting herself. A student, who was present at the above relation, stated, that at the hospital which he was attending, it was a general remark, that scarcely one of the out-patients who were bled, escaped without the arm festering." 60.

We cannot commend the spirit or the judgement of the friend who passed the above severe sentence on a public hospital. Most men of observation know, that in certain seasons, and in certain individuals or habits of body, every scratch festers, and every lancet-puncture inflames, even if made by a Cooper or a Cline. We remember being placed in a situation, about ten years ago, amid the unhealthy marshes of Zealand, where pneumonia prevailed to a great extent, and where almost every man who was bled had an inflamed arm, and sometimes of a very formidable character. At first we thought it was owing to negligence or bad lancets of the assistants, and then bled with our own; but with no better success. We soon indeed found, that such was the nature o the atmosphere at the time, that almost every scratch inflamed and brought on an erysipelatous affection. Would it not have been equally cruel and unjust to blame these occurrences on the medical practitioner?

The time which Mr. A. recommends for hospital attendance, during this second season, is two hours daily, comprising both the medical and surgical practice. He cautions the pupil, (but if Moses were to return upon earth and preach to them on this subject he would not be listened to) against running after extraordinary cases and operations, in preference to the every day duties of the surgeon. But how can we wonder at the pupil's curiosity, when we see grey hairs running to a hospital once in a year to see some extraordinary operation, although their trembling hands, and still more trembling hearts, would not permit them to take a scalpel in their fingers on the most trifling occasion.

"The pupils' fees required and received for hospital attendance in London are sufficiently large to warrant the expectation that the physicians and surgeons should devote a considerable share of attention to the instruction of their pupils. Whether these expectations be gene-

rally realized, or disappointed, I must leave for others to determine : 'Palmam qui meruit ferat.'" 61.

Many of the medical officers of our hospitals certainly do pay considerable attention to their pupils, but the want of clinical lectures renders the hospital attendance of the great body of students a mere dead letter. A short train of clinical observations on the principal cases would attract the attention as well as the attendance of the pupils, whereas the routine is now so dull, that perhaps not a third of the young gentlemen are regular in their attendance—and still more would absent themselves, (thinking the time better employed in grinding,) were they not afraid of their features becoming remarkable, from want of familiarity, and consequently that they would be liable to notice on the part of the surgeon who was to grant the certificate at the end of the year.

Mr. Abernethy's surgical lectures are highly lauded by Mr. Alcock—"but not with any view to disparage the lectures of any other surgical lecturer." We deem it a very delicate point, however, in a public writer, to single out an individual lecturer, and laud him to the skies; for surely it is a mere farce to turn short round to the others and say—"Gentlemen, because I aver that Dr. or Mr. so and so is the very *best* lecturer in this metropolis—I do not, of course, mean to say, that he is a *better* lecturer than any of you."

We shall pass over Mr. Alcock's keen satire on the common practice of his brother practitioners in suspending their certificates for public view in their shops or dispensaries. Considering the number of irregular practitioners which infest town and country, there is some excuse for the surgeon-apothecary, who has gone through his regular studies, in thus proving, by authentic documents, that he is legally and properly qualified to practise his art. After he is completely established and known, he, of course, has no occasion to exhibit these testimonials of of professional education. We think Mr. Alcock's episode of Mr. Abernethy's pupil, in pages 63, 64, and 65, would be just as well omitted in the next edition of these Transactions.*

"It may not be amiss to recapitulate the employment already proposed for this second season, Chemistry, one hour thrice a week—Botany and materia medica, ditto—Theory and practice of physic, ditto—Practical and pathological dissection, one hour daily—Anatomical lec-

* As we think there is a very great deal in Mr. Alcock's paper which would be exceedingly useful for students, we advise him to print it in a small and cheap form for their use, after the Transactions have had a fair run. Perhaps, too, he may revise and modify some of his opinions.

tures, one hour and a half daily—Medical hospital practice, one hour daily—Surgical hospital practice, one hour daily—Surgical lecture, one hour, twice or thrice a week.

Total, four lectures thrice a week =2 hours daily.
Anatomy—Dissection, 1 hour—Lecture, 1½ hour=2½ hours.
Hospital—Med. practice, 1 hour—Surg. prac. 1 hour=2 hours.

6½
Remaining for reading, writing, meditation, &c. - - 2½

Total of intellectual labour 9 hours." 65.

Mr. Alcock thinks that the lectures at the College of Surgeons occupy less time than ought to be devoted to the illustrations which the splendid museum attached to the College requires.

"The burlesque of Molière's Malade Imaginaire becoming doctor himself, is not more preposterous than the idea that all that is important in surgical education can be compressed into the discourses of twenty-four hours, or even of double that extent." 66.

The liberality of the College of Physicians, in throwing open their lectures to the whole of the profession, is praised. We have not the smallest doubt but that these lectures will be as numerously attended as those in Lincoln's-Inn Fields, when they come to be delivered in Pall Mall East, instead of the murky atmosphere of Warwick Lane, impregnated with the effluvia of incarcerated human beings on one side, and the reeking offals of animals on the other.

The student has now terminated his second season, and his health will probably require the renovation which country air can so well bestow. In this interval of relaxation, while enjoying the pleasures of a rural excurison, the perusal of works treating on medical ethics, as those of Percival, Gregory, &c. would be beneficial in confirming the ardour and devotion of the student to the duties of the profession he has chosen. Would to God that medical ethics were more studied and practised than they are! Till a thorough and general conviction of the utility of rigid adherence to the rules of medical ethics obtains, we despair of seeing our profession on a par with the other learned bodies distinguished for their amenity and liberality towards each other.

Our author advises the pupil to visit, during his recess after the second season, the medical schools and hospitals of Dublin, Edinburgh, and Glasgow, not neglecting the various country hospitals and other medical establishments. It is after the third season that he advises a trip to Paris, neither the time nor the expense being greater than that of going over to Dublin. He may go now for 48 shillings to the capital of the Great Na-

tion. Even if he only stays *a week* there it will be a great advantage to him all his life—inasmuch as nothing need be new or great, or difficult, or meritorious, afterwards among his brethren at home—for all these and more he had seen in Paris! But, irony aside, a student of good sense and laudable curiosity, may be nothing the worse for a short visit of three or four months to the Continent. Considering the difficulties under which anatomy labours in this country, the facilities of dissections in Paris are great temptations to pass some time in that capital.

Our author regrets that some of our excellent country hospitals should be deprived of the advantage of granting certificates of qualification for examination at Surgeons' Hall. There can be no doubt that a pupil, brought up at a good country hospital, is infinitely better informed in his profession than the great mass of pupils who run or shun the metropolitan establishments. But it would be invidious to draw a distinction, by conferring privileges on some country hospitals, and it would, perhaps, be dangerous to extend them to *all*. Here it may be proper to promulgate the latest regulation issued by the Royal College of Surgeons respecting the candidate for a diploma.

"'*Royal College of Surgeons in London. Court of Examiners: 1st day of January*, 1823.

"'Candidates for the diploma will be required to produce, prior to examination, certificates—

"'1. Of having been engaged six years, at least, in the acquisition of professional knowledge:

"'2. Of having regularly attended THREE courses, at least, of anatomical lectures, WHICH HAVE BEEN DELIVERED DURING THE WINTER SEASON; and, also, one or more courses of chirurgical lectures; in London, Dublin, Edinburgh, or Glasgow:

"'3. Of having performed dissections during two or more courses, IN THE WINTER SEASON, in London, Dublin, Edinburgh, or Glasgow:

"'4. Of having regularly attended, during the term of, at least, one year, the chirurgical practice of one of the following hospitals, viz. St. Bartholomew's, St Thomas', the Westminster, Guy's, St. George's, the London, or the Middlesex, in London;—or the Richmond, or Steevens' in Dublin;—or the Royal Infirmary in Edinburgh;—or the Royal Infirmary in Glasgow:

"'5. And of being twenty-two years of age.

"'Candidates under the following circumstances, and of the required age, are, also, admissible to examination.

"'Members of any of the legally constituted Colleges of Surgeons in the United Kingdom.

"'Graduates in medicine of any of the universities of the United Kingdom; who shall have performed two, or more, courses of dissection, as above specified; and who shall have regularly attended, during the term of, at least, one year, the chirurgical practice of one of the above-mentioned hospitals.

"'The above rules are required to be observed by candidates to be examined for the testimonial of qualification of principal surgeon in any service.

"By order, EDMUND BELFOUR, *Secretary.*

"'Candidates are to observe that tickets of admission only, will not be received as certificates or evidence of attendance.

"'The late regulations, denoted by small capitals, are not designed to operate retrospectively; therefore, persons who have attended two or more courses of anatomical lectures prior to the 1st of January 1822; or who have attended three or more courses of such lectures, although they may have been delivered during the summer months, prior to the 1st of February, 1823; or who have been engaged in the study of the profession five years prior to the date of these regulations, will be admitted to examination as heretofore.'" 73.

Mr. Alcock considers it a great hardship on some students and some teachers that the courses of lectures on anatomy should be restricted to the *winter season*. But Mr. Alcock must know that there are *reasons for all things*. The following observations are not a little pertinent, and we imagine the queries could not be satisfactorily answered—excepting upon *corporation principles*, which have the wonderful power of reconciling all anomalies, and obviating all objections.

"It may, however, be assumed, that the *verbal* examination at the College of Surgeons either *is*, or *is not*, a sufficient test of surgical ability. If the former be admitted, that such examination *is* a sufficient test, what can be the necessity for vexatious restrictions? Is it not sufficient to determine whether the candidate actually possess the knowledge and ability necessary to perform the duties of surgery?

"If the candidate really possess the necessary knowledge and ability, what, in the name of common sense, can it signify, whether his knowledge has been acquired in summer or in winter, in provincial or in metropolitan hospitals? Will his knowledge be less efficient in the cause of humanity, on account of its having been drawn from the one source or from the other?

"But should any one be driven to the conclusion that such examinations *are not* adequate tests of practical knowledge and ability, let him uphold that the same number of hours applied to dissection in a clear summer's morning are far inferior to the like number in a dull foggy day in winter; and hat there are no sources of surgical knowledge, save and except those few particularized by the Court of Examiners!"

The student is now returned to the metropolis for the third season or year, with renewed health, "and a sufficient enthusiasm to overcome every surmountable obstacle." On a rigid self-examination, before he enters on the third course of studies, the student will probably find that his physiological knowledge is imperfect—that notwithstanding he has diligently attended the instructions of his medical and surgical teachers, yet that

at the bed-side of the patient he is, not unfrequently, utterly at a loss to make his nosological definitions and the symptoms agree—some being absent and others superadded—so that he is bewildered.

"With all his instruction, he has never been taught to investigate disease so as to represent clearly to his own mind, what are the parts or organs of the body which actually deviate from the state of health; what is the nature of the derangement which they suffer; nor to deduce, from these simple facts, principles of treatment rationally adapted to the restoration of health! He has indeed witnessed many cases of recovery to take place without any rigid investigation of the nature of the disease, for the salutary efforts of nature are, in many instances, sufficient to effect recovery without assistance from art; but it is also probable that he may have witnessed, with sorrow, in examinations made after the death of the patient, that the disease had not been, during the *life* of the patient, understood; that the disease was in its nature remediable; and that probably a greater degree of diligence in investigation, aided by the resources of general and medical science, might have led to the discovery of the nature and extent of the malady, in time to preserve the life of a fellow-creature." 75.

Mr. Alcock justly observes, that were *post mortem* examinations more universally instituted, much improvement in the healing art would be the result. "But many there are who would rather that the grave should conceal the errors of their practice, than that those errors should be exposed, either for the improvement of themselves or others." From a pretty considerable intercourse with general practitioners we can confidently assert that there are comparatively few (of the juniors at least) who are not as anxious for post mortem examinations as Mr. Alcock could desire them to be. Some of the elder branches, indeed, or of the old school, are very lukewarm in the cause of morbid anatomy—and when they do bring themselves to examine a head, chest, or abdomen, make quick and sad work of it! But these things are on the wane; and not only a far better education, but a far greater spirit of investigation pervades the general mass of medical society now than formerly.

Our author gives very minute and very excellent instructions to the student and young practitioner, respecting the mode of investigating diseases at the bed-side of sickness—and this section we particularly recommend to them, as it is of the very utmost importance to have some regular plan of proceeding, otherwise much time is lost—many repetitions are made—and, after all, but an imperfect case obtained. We have often, indeed, been astonished at the blundering, confused, and irregular manner in which physicians, even of reputation, have conducted the investigation of an obscure case. The mode re-

commended by Mr. Alcock is too tedious and complicated for either general practitioners or practitioners in general; but it is a very good model for the student, and for him who is only commencing practice. Our own mode is to examine severally the functions of the great organs—for instance, the function of respiration, of circulation, of secretion and excretion, digestion, &c. and then, after getting a short history of the case, to examine, if necessary, how far the great viscera of the abdomen or thorax be organically affected, by means of abdominal pressure and thoracic precussion. By a systematic mode of proceeding, even a complicated case may be sufficiently investigated, in general, in twenty or twenty-five minutes.

Mr. Alcock considers the stethoscope of Laennec as a valuable instrument in diagnosis; but properly observes that, like all other instruments, it requires a little time and practice to become acquainted with its merits.

"In several instances in which the symptoms were such as to leave no doubt in my mind that enlargement of some of the great blood-vessels existed within the thorax, I have been enabled to trace the extent of derangement more accurately by means of this instrument; and it has been a source of confidence both to myself and the patient to be able to ascertain from time to time that diminution of preternatural pulsation (under the use of such remedial means as tended to diminish the force of the circulation,) which marked the progress towards returning health. It is a dangerous error to consider such cases as hopeless; if they be carefully investigated, it will generally be found that they originated under circumstences, which excited the heart's action to an extent more than equal to the powers of resistance in the artery. Let timely attention abate the cause, and the effect will gradually subside. Even in cases in which the enlargement was too obvious to be doubted, and the humble stations in life of the individuals have precluded that absolute rest which forms one of the best remedial means; yet by watching and early treatment under any increase of symptoms, years have passed away in the enjoyment of a very tolerable state of comfort." 90.

The danger of trusting to a single symptom, or even to two or three leading symptoms, is strongly pointed out by our author, and illustrated by examples. Thus he has known a physician mistake aneurism of the aorta for laryngitis, the former disease, by pressure on the trachea producing a train of symptoms resembling the latter. Speaking of the effects of mind on matter, or, more strictly, of mental emotions on the physical organization, Mr. Alcock instances a case of compound fracture in a public hospital which was going on well, till, in an unguarded moment, an ignorant pupil exclaimed, in the patient's hearing, that the limb could not be saved. The sudden effect of the depressing passions was such, that every thing took an unfavourable turn, and the patient died. A table of items of in-

quiry in the diseases of children is given at page 95, which we recommend to the attentive study of the young practitioner.

Mr. Alcock very properly endeavours to draw the attention of both young and old to the state of the air passages in various diseases. The mucous membrane of the lungs has been still more neglected than the mucous membrane of the intestines, in pathological dissections; though there is more necessity for the investigation, and less excuse for the omission, as it is unattended with the inconvenience inseparable from opening the long line of alimentary canal. The function of respiration being more essentially necessary to life than even digestion, it is evident that interruptions to this important process in diseases must have a greater and more sudden effect than the interruption of any other process, with the exception, perhaps, of the circulation. We agree entirely, therefore, with our intelligent author, that examination of the air passages ought to constitute an essential part of every anatomical investigation of morbid appearances.

"One out of numerous instances may be mentioned. An elderly man laboured under fracture of two of his ribs. A bandage had been applied not only to the chest, but also surrounding the abdomen; and this bandage had been kept wet for some days, by lotions. Bronchial inflammation, as might be expected under such circumstances, supervened, and the patient died. Inspection after death was permitted, to which a surgeon who had seen the patient once during his illness, was invited. He arrived just as the examination was said to be finished, but without any satisfactory result; there being none of the common marks of inflammation of the chest (pleura,) and the abdominal viscera being tolerably healthy He inquired what was the state of the air-passages? They had not been looked at. He requested leave to examine them, and found the bronchia and their ramifications filled with fluid of a puriform appearance. The lungs were loaded with similar fluid, which copiously exuded, mixed with a portion of air, on pressing any part of which a section had been made. The bronchial lining was much inflamed, but there was no ulceration — Thus the unexplained cause of death became apparent!"

The third season over, the student should arrange the materials which he has collected or observed. This will be a pleasing and useful exercise, and will enable him to generalize the facts, to compare the results of the various modes of treatment, and thereby to establish that method which has proved the most entitled to confidence. Mr. Alcock properly observes, that the study of books may be of great assistance, for although "experience can never be acquired from reading, it may be prompted and rendered of much easier acquirement by its aid."

"It is not enough that the actual state of the science be already ascertained; but the progressive improvements in medicine and the accessory sciences, which every year brings forth, should be added to the previous stock of information.

"I would caution the student against contenting himself with superficial views and mere dictionary knowledge. Without wandering from one subject to another, whilst he has any disease under observation, let him study it profoundly; let his reading be directed to that particular point; let him examine and compare the descriptions of others with the symptoms which he may observe at the bedside, and let him determine how far the reasonings correspond with the facts adduced." 101.

The pupil may now present himself without fear at the College of Surgeons and Apothecaries' Hall; "but let not the passing of examinations paralyze the future exertions of the student in improving his knowledge of the healing art. However zealously he may labour—however ample his opportunities, yet will there be sufficient scope for improvement. The longest life of the most highly gifted individual would not suffice to supply all the desiderata in medical science, or to make any very near approach to perfection."

Mr. Alcock now glances at "the artificial divisions of the medical profession," but refers us for a proper appreciation of this subject to the well known discussion published a few years ago in the Edinburgh Medical and Surgical Journal. From the following law laid down by the Edinburgh writer, and quoted with approbation by our present author, it appears that physicians and surgeons are mere excrescences from the trees of medical knowledge, and depending on *contingencies* only, (if they mean contingencies of sickness, wounds, &c. they are right,) for maintaining a separate existence."

"From all the foregoing statements and considerations, it must be manifest, that this practitioner *more perfectly represents the medical character than any other*; that, in fact, he alone can be identified with the profession, of which *they who compose the other departments are but partial members, formed into separate associations by casual influences, having no claim of abstract right to that superior, and almost exclusive countenance and protection which they have hitherto engaged, and dependent on contingencies only for maintaining a separate existence.*

"'With respect to the qualifications of the general practitioners, it is requisite that they be *fully competent to the practice of physic, surgery, midwifery, and pharmacy*,—in fact, to *every thing* that medical science and practice can be supposed to extend to.'" 104.

We would ask the Edinburgh and the London writers what it is that renders it "*requisite*" that the general practitioner should have a perfect and intimate knowledge of medical science in every department? Is it the existing regula-

tion which prescribes one year's study in London previously to passing Apothecaries' Hall? But set the prescribed regulation aside, let us look, not at what *ought to be*, but what actually *is* the state of the case. Let us go to Apothecaries' Hall, and to the College of Surgeons on examination days, and we shall find at least one half of the candidates, who cannot show certificates of one hour more than the prescribed period of attendance on hospitals and lectures. And we would seriously ask the writers and approvers of the foregoing extract, whether they could conscientiously assert that such candidates are perfectly qualified to start as physicians or operating surgeons, and that it is merely an artificial distinction, having no foundation in abstract right or justice, which separates them from the very highest orders of the profession? This is bringing the decision of the question to the tribunal of plain demonstrable facts, and not of speculations. If the education of the surgeon-apothecaries of Great Britain can be brought to the state of perfection contemplated either by the Edinburgh writer or by Mr. Alcock, why then we have no hesitation in saying that the office of physician or surgeon is perfectly unnecessary, because no man can be *more* than "fully competent" in every branch of medical science. Hippocrates himself was no more—nay not so much, for he could not perform the operation of lithotomy. But a more Utopian expectation never entered the mind of man, than that which contemplates a perfect equality of education and study among all ranks of the profession. It never can take place till there is an equality of rank, condition, and circumstances throughout society in general. The remuneration accorded by the middling and lower orders of the community to the surgeon-apothecary for his professional services, never can be such as to repay the expense of an education such as the physician is forced to have—and consequently, there must be gradations of rank and qualification in the profession, to meet the gradations of wealth and rank in society at large. We are well aware, indeed, that there are almost innumerable instances of splendid talent, extensive acquirement, and consummate skill, among the general practitioners of this country. But these instances more frequently result from great native capacity in the individuals, conquering all difficulties of time and place, than from expensive and elaborate educations, scholastic or medical.—Were it not invidious to appeal to living examples, we could prove, that many of the most distinguished ornaments of medicine and surgery, at the present moment, had originally an extremely imperfect education, whe-

ther we look to literature or science. It will be sufficient to point out one of the illustrious dead—JOHN HUNTER.

In examining the state of the general practitioner, Mr. Alcock takes occasion to deplore and expose the incongruities and defects of the late act—*in their favour*—if that act can be called in their favour, which exposes to heavy penalties and vexatious domiciliary visits the Apothecaries themselves, while their more quiet and fortunate neighbours, the Druggists and Chemists, may practise the art and mystery of the profession, *in all its branches*, with perfect impunity! Certes this act exhibits a magnificent specimen of judgment and acumen on the part of the committee who superintended its progress through the House.

Mr. Alcock inveighs strongly against that clause which imposes fine, and even forfeiture of practising certificate, on the apothecary who refuses to mix, compound, give, or administer the prescriptions of the physician.

"Really," says Mr. A. "the vassallage of the barbers and the barber-surgeons of antiquity, to their lords and masters the physicians, could not be more submissive than that of the humble apothecary of the present day who may happen to be *honoured* with the commands of the M. D's of London, Oxford, and Cambridge." 109.

We suspect that, as times go, it will but rarely happen, that the physician shall *force* the apothecary to make up his prescriptions—or that the apothecary shall consider it a crying evil when the said prescriptions are sent to them instead of the chemists. In fact, one of the complaints of the general practitioner against the physician rests on this very ground—the practice of sending prescriptions to the chemist instead of the apothecary.

In respect to the advantages derivable from the act, on the score of prohibiting improper or unqualified practitioners from exercising their art, or rather their ignorance, on the community, our author remarks—we fear with too much justice—that—

"It cannot be mentioned without regret, that the effect of these clauses has hitherto been too much resembling that of the cobweb, which entangles the small flies, and allows the greater to break through it. The very few prosecutions that have been commenced, during a period of more than seven years, have been against individuals whose extreme ignorance must have been a tolerable guarantee of their insignificance; and it may be questioned whether the entire practice of all the individuals thus prosecuted was equivalent to that of a single dispensing druggist in full trade in the metropolis." 115.

But although this act leaves the druggists and chemists to do just as they please, it must not be forgotten that it provides

for a very fair professional education on the part of the surgeon-apothecary who regularly enters the profession as such. It may here be as well, for the information of a large proportion of our readers, to give a short extract containing the most recent regulation issued by the Court of Examiners at Apothecaries' Hall.

"'The Court of Examiners chosen and appointed by the Master, Wardens, and Assistants of the Society of Apothecaries, of the city of London, in pursuance of a certain Act of Parliament, "for better regulating the *Practice* of Apothecaries throughout England and Wales," passed in the 55th year of the reign of His Majesty King George the Third, have determined:

"'That every person who shall be admitted to an examination for a certificate to practise as an apothecary, shall be required to produce

"'Testimonials of having served an apprenticeship of *not less* than *five years* to an apothecary; of having attained the full age of *twenty-one years*, and being of a good moral conduct.

"'N. B. Candidates for examination are requested to take notice, that in future the production of their articles of apprenticeship where such articles are in existence, will be considered indispensably requisite to examination; but, in any case, where such articles shall have been lost, or from any other cause may not be capable of being produced, it is expected that the candidate shall bring forward very strong testimony to prove that he has served such an aprenticeship to an apothecary, as the Act of Parliament directs.

"'He is expected to possess a competent knowledge of the Latin language, and to produce certificates of having attended not less than

"'Two courses of lectures on anatomy and physiology:

"'Two courses of lectures on the theory and practice of medicine:

"'N.B. After the 1st of January, 1823, no testimonial of attendance on lectures on the principles and pratice of medicine, delivered in London or within seven miles thereof, will render a candidate eligible for examination, unless such lectutes were given, and the testimonial is signed by a Fellow, Candidate, or Licentiate of the Royal College of Physicians.

"'One course of lectures on chemistry; and

"'One course of lectures on materia medica.

"'A certificate of attendanee for *six months at least* on the *medical practice* of some public hospital, or infirmary, or for *nine months* at a dispensary.

"'The court have also determined, that the examination for a certificate to practise as an apothecary, shall be as follows:

"'1. In translating parts of the Pharmacopœia Londinensis, and physicians' prescriptions.

"'2 In pharmaceutical chemistry.

"'3. In the materia medica and in medical botany.

"'4. In physiology.

"'5. In the practice of medicine.

"'Notice.

"'Every person intending to qualify himself under the regulations of this Act, to practise as an apothecary, must give notice in writing, addressed to the clerk of the society, on or before the *Monday* previously to the day of examination; and must also at the same time de-

posit all the required testimonials at the office of the beadle, at Apothecaries' Hall.

"'The court will meet in the Hall *every Thursday*, where candidates are requested to attend at half past one o'clock.

"'By order of the Court,

"'London, Oct. 1, 1822. JOHN WATSON, Secretary.'" 117.

Mr. Alcock severely censures the clause in the above regulation which restricts the testimonials of medical attendance on lectures, (in London) to those granted by fellows, candidates, or licentiates of the College of Physicians. Certainly, as far as abstract right or justice is concerned, the acquisition of knowledge should be the criterion, and not the particular source whence it is derived. And it does look as if the Court of Examiners distrusted the efficacy of the examination by adding the clause so objected to by Mr. Alcock. The act declares that the examiners are authorized to examine all those who present themselves for that purpose—and, in another clause the examination depends on testimonials of a *sufficient* medical education and good moral conduct. Unfortunately, (says Mr. A.) there is no definition of this *sufficiency* of medical education; but, will it be believed that an *apprenticeship to a druggist* has, upon *some* occasions, been thought a sterling qualification, while an apprenticeship and assistancy of nine years with a regular surgeon-apothecary, where extensive opportunities of information presented themselves, and were even put to good use, would not be listened to as the preliminary to an examination! These facts prove, says Mr. Alcock, that they who are appointed by law to superintend and carry the purpose of the act into full execution, may set its provisions at naught, and "go on and prosper"—if increase of gain be the criterion of prosperity. With the following sentiment we perfectly agree, as we have long been firmly convinced in our own minds of its truth.

"The increasing intelligence of the public calls for adequate attainments on the part of their medical attendants; and to this powerful source do I look, more than to any exclusive privileges of corporate bodies, for calling forth the energies and extending the usefulness of the profession." 120.

The subject of remuneration for the professional services of the surgeon-apothecary has been a fruitful, or rather a fruitless subject of dispute. It is, however, a subject, of very great importance, inasmuch as the *mode* of remuneration, is, in our humble opinion, the greatest grievance of which the general practitioner has to complain, and, unfortunately, the most difficult of remedy.

"The mode of remunerating the general practitioner is not only degrading but unjust; it degrades that education on which his usefulness depends, sets it at naught, and values only the drugs, and not the skill that directed their use. It is degrading, inasmuch as it holds out a temptation to furnish a larger quantity of medicine than may be absolutely required, and thereby exciting distrust; and it is unjust, inasmuch as the reward is not in direct ratio to the ability exercised, but inversely; the skilful practitioner who readily effects the removal of disease receiving the least; and the inefficient practitioner whose want of skill allows the disease to run a protracted course receiving the most. Farther, the well-educated and efficient members of the profession are well aware that mere medicine is but a subordinate part of the successful treatment of disease; much must always depend upon the ability to detect and guard against the causes which have produced it: in acute disease improper food, &c. will more than counteract the best directed medicine." 122.

From all these considerations, Mr. Alcock asks, can it be doubted, that the welfare of the sick and the respectability of the practitioner would be prompted by the correction of so erroneous a system? We say it cannot be doubted. But we have given it all the consideration in our power, both practically and speculatively, without being able to point out any effectual remedy. Suppose it were established either by law or custom that the surgeon-apothecary should have half-a-crown or three shillings for his visit, independently of the profit on the medicines; would not the same objection still lie against the furnishing of the medicine? The *mercenary* practitioner would still have a temptation to send in too much, (for when was the *mercenary* man ever satisfied with the ratio of his profits?) and the patient would still have the suspicion that he was swallowing a little for himself, but far more for the apothecary. If, on the other hand, Mr. Alcock's plan be adopted, the patient will be dissatisfied on a different ground.

"Let the general practitioner then receive a moderate compensation for each consultation requiring the exercise of his skill and experience; and let him freely furnish, without farther charge, the medicines that may be necessary to the recovery of his patient, considering them as part of the means of promoting the end for which he is consulted." 122.

Is it not evident that here the patient, who is generally out of humour when ill, would suspect that, as all which the practitioner sends after receiving his fee, is at his own cost, so he will neither send the medicines of a proper quality or quantity?—in fact, there would be constant grumbling about the medicines in this case. If you send bitter, or rough, or disagreeable medicine, then you are giving what is more fit for a horse than a man—if you send inert or agreeable ones, then you are exhibiting *sugar and water* to save expense and pro-

tract recovery. These illiberalities on the part of the patient are not imaginary. There is not a class of people on the face of the earth containing so large an alloy of illiberality and ingratitude as those who have been on the sick-list of the apothecary—when the bill sent in.

It is impossible for either the physician, the surgeon, or the surgeon-apothecary, to place himself entirely out of the reach of suspicion among some of the less liberal-minded of his patients; but the nearest approach that can be made to this desirable state, on the part of the general practitioner, is to give the patient his advice and prescription (or surgical assistance) like the physician or surgeon, leaving him at liberty to get the medicines where he pleases. The great sacrifice here made is evident enough. The chemist and druggist will then have the whole of *pharmacy* in their own hands, and the revenue of the general practitioner will be greatly curtailed. On the whole, we do not see how the matter is to be amended in any other way than as is done now in many provincial towns, by *general consent among the practitioners themselves—namely*, that of sending only what the medical man conscientiously believes is necessary, and charging a moderate sum for attendance. In this case, no items should ever be stated, unless the patient peremptorily demands the statement, which would be a rare occurrence, as we know by five years' experience of the plan. The practitioners have only to agree among themselves upon this subject, and the public *must* adopt it. Indeed, the public would prefer it. But while a medical practitioner, of liberal education and enlightened views, is forced to make out a bill of parcels like a grocer or tallow-chandler, he cannot but feel a sort of degradation on his own part, and experience more or less of it on the part of the public at large.

On the subject of consulations Mr. Alcock makes some remarks. It is, and ever will be the case, that, in each class of the profession, now so extended, a number of unworthy members must always exist. There will be general practitioners who declare war against the physician, and endeavour to bar his access to any of their patients—and there will be physicians, who, regardless of the dignity of their profession, of the principles of moral conduct, or the rules of medical ethics, will take opportunities of making reflections, by word or by look, inimical to the reputation of the practitioner already in attendance. These systems of petty warfare are highly disgraceful to both parties, and but too well calculated to bring odium on the profession at large; for it is rather the dark than the bright side of the faculty that catches the attention of the public, and

especially of the satirist. Still we are happy to say, that among all classes of the profession there is a large and preponderating balance on the side of exalted talent, useful learning, and genuine philanthropy—perhaps beyond what may be found in the other learned professions, though there is, unfortunately, less unanimity and co-operation to make the good qualities apparent to the world at large.

"'That practitioners of medicine are influenced by very different motives than those which too often are rashly and ungenerously imputed to them, might be proved by innumerable examples. The following instance will rank high in the estimation of all men who have a due sense of the real importance of the medical practitioner, and of the serious and even awful responsibility which attaches to his office.

"'The late Benjamin Tyre, of Gloucester, was a Surgeon not less distinguished for his scientific attainments than for his genuine philanthropy: amongst the manuscript papers examined after his decease there was found a Latin prayer, a language which he wrote, it appears, with great fluency and correctness, devoutly imploring of the Almighty that he might be enabled to render himself eminently useful to all who should come under his care; that he might never be permitted to yield to the temptations of pecuniary interest, nor convert into sordid gain the exercise of a profession, intended, under the sanction and blessing of an all-wise Creator, to promote his benevolent views in removing or lessening the various maladies incident to human nature.'" 133.

We are of opinion that associations of medical men are too rare in this country. We see, for example, in the College of Physicians, a bond of union established among its fellows, which induces them to act as harmoniously together as the various wheels of a watch or the sails of a ship, in the completion of one common object. This example should be followed by every class of the profession, especially in this metropolis, and in all great towns. By these associations the members would all become personally known to each other—which is a very potent preventive of illiberality—and laws and regulations might be framed, from time to time, that would highly conduce to their own benefit and the benefit of society in general. We hope this hint will, ere long, be acted on effectually.

To revert, in conclusion, to the main subject of this paper—the education of the general practitioner, we have but a few remarks to add to those already made. Every observer must have seen how much of the student's time is squandered away, during the period of his attendance on lectures in London, for want of some person to direct the path of his investigations. But a very few, comparatively, can be admitted into the houses of private practitioners—and even these derive little other advantage from such admissions than what results from the moral

restraints put upon untimely hours and improper connexions. There is not one in fifty of the private practitioners who admit pupils, who is capable or inclined to direct their studies in the manner they ought to be directed. We think, then, that if a few such men as Mr. Alcock were to undertake the superintendance of pupils and their avocations while completing their studies in London, they would be of infinite service to the rising generation of the profession. This might be done at very little more expense to the students than they now incur in the irregular and uncomfortable manner in which they live in this metropolis, where their morals are too often corrupted, and their time misapplied for want of a home and a preceptor.

We take our leave of Mr. Alcock without making any apology for the freedom of our strictures on this paper. If we are not greatly deceived in our estimate of his character, he is not among those weak but hot-headed authors whose backs are set up if the slightest doubts are started of their infallibility on any given subject. He who comes before the public in any shape must expect opposition—if his lucubrations are worth perusing;—and he who censures others ought surely to make up his mind to be repaid in *kind*.

ART. 2. *Case of Chronic Inflammation of, and Accretion of the Pericardium to the Heart.* By JAMES JOHNSON, M. D.

This is one of those diseases, the frequency of which is on the increase in the present day. The subject of the communication was Mr. Bewley, a dentist, in Duke-street, St. James's, who, for several months before his last and fatal illness, had been considered phthisical, as he laboured under cough without expectoration, febrile movements in the system, and progressive emaciation. "Occasionally, however, he was attacked with arthritico-rheumatic affections of the joints, at which times the pulmonic phenomena almost entirely disappeared." Shortly before Dr. Johnson saw him, he had a smart attack of thoracic inflammation, and was judiciously treated by active depletion under Dr. Golding, who called in Dr. J. in consultation on the present occasion. A sudden translation had just taken place to the joints, and the pulmonary symptoms had, as on several other occasions, almost entirely disappeared. The colchicum was ordered, and in three days the patient declared himself nearly free from complaint, being able to sit up, and in high spirits. In the midst of this rapid recovery he was seized with apoplexy and paralysis of the *right* side. By bleeding, blistering, cupping, purging, and sinapisms, sensibility was restored, and in two or three days he knew his friends, and spoke,

though with some difficulty. He continued to give hopes of recovery from the immediate effects of apoplexy for six days, when he fell back again, became comatose, and died about a week from the apoplectic seizure.

Dissection. The vessels of the head were gorged with blood, and there was some effusion between the tunica arachnoidea and pia mater In making the incision for the centrum ovale, we came to a rent in the *right* posterior lobe of the cerebrum, containing a clot of blood, of about an ounce. The laceration communicated with the lateral ventricle of that side, which was filled with blood, as also the other lateral ventricle, the third, and the fourth ventricles.

"In the chest, the lungs might be pronounced sound. There were adhesions between the pleura costalis and pleura pulmonalis of the right side, and an effusion of a few ounces of serum in the left cavity of the chest. The pericardium and parietes of the heart were so completely accreted together by chronic inflammation, that the scalpel could not separate them without cutting one or other structure. There was no other organic lesion to be seen." 137.

Dr. Johnson states, that during the time he had attended Mr. Bewley, he always found a strong action of the heart in the proper region, *but no pulsation in epigastrio.* The pulse was regular, but generally tensive, even after considerable evacuations from the vascular system. In this case it will be observed that the hemiplegia was on the *same side* as the ruptured vessel in the brain, and clot of blood effused. It is true, the blood had also got into all the ventricles, but why should the hemiplegia have been on one side only, and that on the same side as the extravasation, which is contrary to the general rule? In fact, there is great mystery in the pathology as well as physiology of the brain.

In respect to the accretion of the heart and pericardium, it may be remembered that authors, and particularly Burns, have laid down pulsation in epigastrio as a distinctive mark. We have opened a considerable number of patients who have had this accretion, and have found the abovementioned mark as often absent as present. We will just glance at a case which we examined, while drawing up this article, in presence of Dr. Nuttall, and Mr. Freeman of Spring Gardens. A fine young gentleman of Liverpool had been affected with cough, expectoration, and palpitation of the heart for several years, and it was supposed that he was in a state of incipient phthisis from repeated thoracic inflammations, which had been very properly treated by his medical attendants in the country. In the spring of the present year, he was advised by his physician to try change of air, and accordingly he came, with two of his sisters, to Hastings. There he got so much better in the course of a few weeks that he determined to return home. Still he had much shortness of breathing on us[illegible]with palpitation

of the heart, and a very quick hard pulse. In the latter end of May he travelled outside of the stage from Hastings to London; but on arriving at Hatchett's Hotel, he was so ill from the motion of the coach, that the writer of this article was sent for, late at night, to see him. His pulse was 120, and peculiarly hard—breathing laborious—cough troublesome—face flushed —action of the heart perceptible, even by the eye, over a space of eight or ten inches in diameter of the thorax. The succussion of this organ could be distinctly felt by the hand over great part of the *right side* of the chest—a circumstance which convinced the reporter that there was enlargement of the heart, with either condensation of the right lung, or effusion in that side. The thorax, all over the right side, sounded like a piece of solid wood, except for a small space below the clavicle. The *left* side sounded well, except just over the region of the heart, where the sound was duller than natural. The expectoration was copious and glairy, with some specks of a purulent appearance. It was stated to his sisters that inflammation of the chest existed, which might or might not be got under; but that there was organic disease of the heart and other parts, which must inevitably prove fatal at no distant period—most likely during the present attack. It is unnecessary to detail the depletive and other measures which were used. They subdued the immediate and pressing symptoms of inflammation; but the cough, palpitation, expectoration, and laborious breathing could not be checked, and he died fifteen days after his arrival in town. Dr. Nuttall and Mr. Freeman were present when we examined the body, and we stated precisely what has been stated above—that we considered the disease to be enlargement of the heart, with condensation or effusion in the *right* side. Percussion in the dead body gave the same indications as in the living, of which the abovementioned gentlemen satisfied themselves before we put a scalpel on the corpse. On opening the thorax, marks of recent inflammatory action were conspicuous all over the pleura. The heart was nearly double its usual size, and most firmly accreted to its pericardium in every part, so that no free space was to be seen. The lung of that side was sound. The lung of the right side was completely hepatized, except a small portion under the clavicle. There was better than half a pint of bloody effusion on the right side. No other lesion of any consequence was observable.

Here a question might be asked—which was prior in its commencement—the hepatization of lung, or the enlargement of the heart, with accretion of the pericardium? We would say that the two last affections were of longest standing.

But here we must close this article, reserving for our next number a consideration of the other important papers in this volume.

IV.

Elements of Therapeutics and Materia Medica. By N. CHAPMAN, M. D. In two volumes, 8vo. Vol. II.

[Concluded from No. 13, page 77.]

1. *Emmenagogues.*—The first section of the second volume of Dr. Chapman's work is on Emmenagogues. It is a general complaint, that the operation of medicine designed to act on the uterus is very precarious. Our author thinks that our disappointment in such cases does not so much result from want of power in these medicines to produce specific impressions on the uterus, as from the incorrect views which we have hitherto entertained of the process of menstruation, and still more from our overlooking the very different states of the system with which the suppression of the catamenia may be connected. Our author thinks that the process of menstruation is "very generally" considered to be a "mere effusion of blood." Dr. Chapman therefore undertakes to prove that this opinion is erroneous. Here our author combats a phantom, for we do not know a single practitioner or writer who now entertains such an absurd doctrine. Every body, in the present day, looks on the discharge as a secretion—as much so as milk from the mamma. This was John Hunter's opinion, as may be seen in the following quotation in John son's Midwifery, and is the generally received opinion of the profession at present. "'The blood discharged in menstruation, is neither similar to blood taken from a vein of the same person, nor to that extravasated by an accident in any other part of the body: but is a species of blood changed, separated, or thrown off from the common mass by an action of the vessels of the uterus in a process similar to secretion, by which action, the blood, having lost its vital principle, does not coagulate.'" P. 6.

Our author now proceeds to the individual articles which have been found to produce a local action on the secretory function of the uterus.

1. *Polygala Senega.* To Dr. Hartshorne of Philadelphia, our author attributes the credit of first discovering the "admirable properties of this article as an emmenagogue." Dr. Chap-

man has made extensive trial of the medicine both in his public and private practice, "and with sufficient success to warrant him in recommending it as one of the most active, certain, and valuable of the emmenagogues." It may be used either in powder or decoction; the latter he prefers.

"In making the decoction, I put a pint of boiling water, to an ounce of root, bruised, in a close vessel, and let it slowly simmer over the fire till the quantity is reduced one-third. Where the medicine excites nausea, which it is sometimes apt to do, even in small doses, I have it prepared with the addition of an aromatic, such as orange peel, or cinnamon." 8.

He prescribes about four ounces, more or less, daily, increasing the dose, about the expected period of menstruation, as far as the stomach will bear. In the intervals of the catamenial periods, he intermits the medicine for a week or two, lest it become nauseous or disgusting to the patient.

2. *Savine.* This is a warm, powerful, and diffusible stimulant, and seems to take a specific determination to the uterine system. Cullen spoke slightingly of it, and it has fallen into disuse—unmeritedly, our author thinks. The dose of the dried leaves is fifteen or twenty grains. Nearly the same observations apply to the rubia tinctorum, of which the late Professor Barton speaks in favourable terms. It is well known also, that the pulegium, or pennyroyal, is a very popular remedy for the purpose in question—and probably not without some foundation in fact.

3. *Secale Cornutum.* The Ergot is an elongated excrescence which fills the place of the seed within the glume or husk of rye. It is of an irregular curved form, something like the spur of a cock, of a dark colour, unpleasant taste, and brittle texture. Experiments have been made with it on animals, and it has produced a gangrenous state of their extremities. It is, therefore, probable that the idea long ago entertained that it produced a species of dry gangrene among people who fed on damaged rye, was not without some foundation in truth.

"As an article of the Materia Medica, the credit of establishing it, must be conceded to this country.* It is now eight or ten years since Dr. Stearns, of the state of New-York, gave to the world an account of its wonderful powers in promoting lingering labours. By a large number of practitioners it has since been tried with the same view, and though there may be some difference of opinion in relation to the

* "As a remedy in the promotion of labour, it was, no doubt, earlier employed in France. But the practice seems not to have been regulated with any propriety; and ceased after a short time."

degree of its utility, we have the most ample attestations in its favour. My own experience with it, which is by no means narrow, enables me to speak positively of its powers in this respect; and the same impression is entertained of it by several of my medical friends, engaged in the practice of midwifery in this city. I have been supplied with some very strong facts of a similar purport by several of my correspondents, and still more might be collected from the medical journals of our country. Though its powers, in this respect, seem to be sufficiently admitted, some discrimination is required in the selection of appropriate cases, as well as caution, in the use of the article.

"The mode in which I have been accustomed to prescribe it, is to dissolve a drachm of the powder in a small portion of water, and to give one-third of it every half hour, till the effect is induced. Not more than ten or fifteen minutes elapse before the uterus is excited into strong and violent pains, which, in all cases that have come under my notice, continued with little or no intermission or abatement, for a very short time, and then entirely ceased." 17.

It will be prudent, before using so violent a remedy, to ascertain that the os tincæ is pretty well dilated; otherwise we shall expose the woman to much pain, or perhaps to a rupture of the uterus. Our author, though he has used and seen it used, in more than a hundred cases, has never had reason to suppose that it acted deleteriously on the fœtus. It has slender powers as an emmenagogue. But, in some painful forms of dysmenorrhœa, he has seen it afford much relief by bringing away the deciduous lining of the uterus.

4. *Melampodium.*—Cullen, with his usual scepticism, nearly proscribed this medicine in amenorrhœa; but it has many just pretensions, in Dr. Chapman's opinion, and especially when it purges. Thirty or forty drops of the tinctura melampodii constitute a dose every three or four hours, so long as the stomach will bear it without nausea or vomiting.

It is hardly necessary to remark, that the state of the system is to be taken into consideration. Some will require steel and other tonics—some will require the cold bath—many the warm hip-bath and local or general evacuations of blood.

"Nor is it by any means uncommon to meet with suppression of the menses, where the pulse is active, the habit plethoric, with a flushed face, and even eyes inflamed, accompanied by pain in the back and head, and with acute and uncomfortable sensations of fulness in different parts of the body. No one could hesitate a moment under such circumstances, to resort to venesection as the most prompt and effectual remedy. While it unlocks, as it were, the secretory actions, it obviates the danger which is too apt to ensue from vicarious hæmorrhages in the brain, the lungs, or some other vital organ. I have more than once seen, after a copious bleeding, the menses very speedily flow, and the obstruction permanently removed. Nor should we neglect, as auxiliary means, to invite the circulating fluids to the lumbar region, by the interposition of active purgatives. As operating on the large intestines which lie in the vicinity of the uterus, the vari-

ous preparations of aloes have been much celebrated. There can be no doubt of their superior efficacy Combined either with calomel or myrrh, aloes almost always display active emmenagogue powers.* With the same view of causing a determination to the parts, I have sometimes employed, with marked advantage, blisters, and especially when applied to the inner part of the thighs." 23.

In respect to dysmenorrhœa, our author coincides with Dr. Dewees in supposing that it frequently depends on an imperfect secretory action of the uterus, by which an extraneous membrane is sometimes produced. Of the volatile tincture of guaiacum in these cases he has not yet had much experience.

"The remedy, however, in which I repose the greatest confidence in painful menstruation, is a combination of opium and camphor. I resort to it habitually, and scarcely ever without success. It is to be exhibited in the proportion of two grains of the first to ten of the second article; and if one dose should not answer, a second may be employed. Cases will occasionally occur where the sufferings are so severe as to demand the most immediate relief, and, under such circumstances, an anodyne injection sometimes operates very efficaciously" 24.

To do away with that state of the uterus on which this particular form of amenorrhœa depends, he recommends the suggestion of Dr. Dewees, already alluded to. "After all, we are not to lose sight of mercury in the disease. By a moderate salivation, continued for a week or two, we shall sometimes succeed in curing amenorrhœa, in its different forms, when every other mode of treatment has failed." 25. But, as Dr. Chapman observes, in the treatment of amenorrhœa, we must be prepared for disappointment. The secretion of the menses is probably much influenced by the state of the ovaries, and these are often disordered. By carefully examining the state of the system, however, and adapting our remedies to its condition, we shall generally succeed.

II. *Expectorants.*—These have been defined "those medicines which facilitate or promote the excretion of mucus or other fluids from the pulmonary system." There is much difficulty in accounting for the operation of this class of medicines, and

---

* "Not the least valuable, however, of these combinations is one known by the name of Hooper's pills. These are made according to the annexed prescription:

"℞. Sal. mart. ℥ss. Pulv. jalap ʒi. Hiera picra, ʒss. Myrrh. ʒss. Syrup. com. q. s. ft. mass. div. in. pil.

"Of these pills, which are prepared of a convenient size, two or three are taken at bed time, for several nights successively. They purge actively, and I presume it is by virtue of this property, that they operate so beneficially as an emmenagogue. In the original formula, I believe castor was added. The apothecaries of this city, however, have been induced to omit it, as rendering the pills offensive, without at all increasing their efficacy."

there are many physicians of the present day who deny any such power as these are supposed to possess. Cullen conjectured that they increase the effusion from the arteries of the lungs, which being a thin fluid, dilutes the mucus of the pulmonary follicles, and by rendering it less viscid and tenacious, makes its expulsion more easy. Expectoration, in fact, may be promoted by very different means. Where an inflammatory condition of the mucous membrane obtains, bleeding will promote expectoration—and so will antimony or ipecacuanha, by lessening the force of the circulation, and producing nausea. When the lungs are oppressed with viscid secretion, and the constitution enfeebled, stimulants, as squill and gum ammoniac, will relieve the chest.

"But in all cases, and in whatever manner these medicines are productive of advantage, it is by an impression first made on the stomach, and subsequently extended to the lungs, through the medium of that sympathy which so intimately and conspicuously connects these parts. Nothing is more absurd, or less capable of being reconciled with the present state of our knowledge, than the hypothesis which is to be found, even in the most recent of the writers on the materia medica, that expectorants operate by reaching the lungs through the circulation!" 31.

Our author lays down only two rules for our guidance in the exhibition of expectorants.

"1. As in the use of diaphoretics, let the patient be kept warm. There is a very close consent between the skin and pulmonary organs, and we shall generally perceive that moderate warmth, and even moisture, on the surface, greatly facilitates expectoration.

"2. Carefully avoid purging. As remarked on a former occasion, none of the complaints of the lungs will bear this evacuation to any extent. Besides which, the action of the secretory vessels of the lungs and intestines, would seem to be alternate and opposed. Expectoration, at least, is very apt to be suppressed or diminished by diarrhœa or by the use of purges." 31.

Our author next descants on the individual expectorants, omitting the emetic substances, which are amply treated of under other heads.

The lichen islandicus, glycyrrhiza, mimosa nilotica, ammoniacum, scilla, allium, assafœtida, and polygala senega, pass in review; but, excepting of the latter, we need not here speak.

"This," says Dr. Chapman, "is one of the best of the expectorants. To pneumonia, under almost all circumstances, it is, at least in popular practice, applied, and the confidence reposed in it, in some parts of our country, has long been, and still continues, exceedingly high. Considering, however, its stimulating nature, it ought not to be thus indiscriminately employed. Excepting typhoid pneumonia, it is inadmissible in the early stages of the acute complaints of the chest. But after

inflammatory action has been reduced by previous depletion, it comes in exceedingly well as an expectorant, and, perhaps, also, as having a tendency to relieve congestion of the lungs, by promoting determinations to the surface. It is in this way that it operates so beneficially in the pneumonia of infirm people, which is always attended with debility of the pulmonary organs, and, consequently, with large and oppressive lodgements of phlegm or mucus." 43.

Our author considers, and with reason, that the ammoniæ carbonas is among the most important of expectorants, especially in the advanced stages of acute pneumonia. But more will be said of this medicine hereafter. Passing over colchicum we come to the balsams, and we extract the following note respecti ng the copaiba.

"I have lately learnt from Mr. Brown, a most intelligent apothecary of this city, a much more convenient mode of exhibiting this medicine, than any hitherto proposed. The copaiba is poured on half a wine-glass full of water, and immediately afterwards are slowly added, in the same way, a few drops of the common bitter tincture. By this, the copaiba is collected in a small globule, readily swallowed, and its taste, so nauseous to most people, is entirely lost in the bitterness of the vehicle. Given in this mode, it always rests well on the stomach." 50.

As an inhalation in dyspnœa and other chronic affections of the lungs, our author mentions a combination of a tea-spoonful of Hoffman's liquor and the same quantity of laudanum, put into an inhaler with some boiling water and the steam breathed. He thinks the effects of the smoke of stramonium have been greatly exaggerated.

The section on anthelmintics in Dr. Chapman's work, offers nothing for quotation into our pages. A section follows on blisters, which contains much useful practical information, but which we shall also pass over.

The application of blisters to particular diseases next follows in the work under review; but the observations, though judicious, contain nothing novel, if we except the following passage.

"Of the numerous improvments in surgery which have been suggested by Dr. Physick, there is scarcely any one of more unequivocal utility, than the management, by blisters, of inflamed veins from the operation of bleeding. In most cases, a single one will prove adequate to the cure, though occasionally, when the arm is very stiff and tumid, a succession of them is demanded. The mode of application is, to confine a strip of the plaister along the whole course of the inflamed vein, making an opening for the pus or sanies to escape," 113.

III. *Diffusible Stimuli.* The 7th section is on diffusible stimulants. Our author observes, in limine, that, while he maintains the incitant or stimulating effect of most substances applied to the human body, he still is not among those who insist

that they are all endowed with the same properties, differing only in degree of force, permanency, and diffusibility. "Consistently with his own conviction, there are no two articles which produce precisely the same effects." In this we perfectly agree with our ingenious author. There is a distinction in regard to general stimulants which is too important to be overlooked. We have one set distinguished by great diffusibility, and which nearly as soon as exhibited occasion universal excitement over the body—and there is another class, by which tone is imparted, though very slowly, and only by a long continued administration. The diffusible are very transient in their effects; the others produce permanent or enduring impressions.

Respecting narcotics, it is not necessary to enter into the dispute about their directly or indirectly stimulant properties. Most practitioners are acquainted with the circumstances which indicate and contra-indicate their employment, and that is the main point.

"Exhibited in a moderate dose, the purer narcotics excite activity both of body and mind. The force frequency, and fulness of the pulse are increased, muscular action is rendered more vigorous, the temperature of the surface becomes higher, some of the secretions are promoted, and hilarity and animation of spirits are induced and kept up for a season. But the effects enumerated, as caused by a limited use of these articles, having continued for a short period, are succeeded by very unequivocal signs of diminished action, and subdued sensibility. The pulse become slower, and more full than natural —the secretions, except by the skin, are abated—there is less susceptibility to impressions—pain is alleviated, and inordinate motions repressed—muscular power is abridged, and the mind, partaking of this general languor, is dull and inactive. This state either terminates in sleep, or produces a tendency to it.

"By a large dose, debility, without any previous excitement, is occasioned, or if there be excitement, it is so evanescent, as not to be perceived—and when the effect goes off, there are tremors, sickness, headach, and oppression.

"Taken in excess, the system at once sinks under the impression, and the consequences are either wild delirium, or heavy stupor, deep, difficult, and stertorous respiration, convulsions, apoplexy, or paralysis, and ultimately death." 145.

It is thus manifest that most of the narcotic class are capable of producing stimulant or sedative effects, according to the mode in which they are administered. To command their stimulant power, they ought to be prescribed in small doses, frequently repeated and gradually increased—by which the excitement they enkindle is sustained. But when the design is to mitigate pain, to procure sleep, to relieve irritation, or deaden sensibility, they should be exhibited in a full dose, and

at more distant intervals. It is not easy, as Dr. Chapman o b serves, to fix the period, in the progress of a disease, or to ascertain the circumstances in which it becomes proper to prescribe stimulants. It is far more easy to come to a just decision in respect to the use of depleting measures.

"Meaning, in the administration of stimulants, to overcome an existing action, by exciting a new and a stronger one, it is obvious that they can only be resorted to with any hope of advantage in the feeble shapes of disease, or in more violent forms reduced by previous evacuations. In determining the exact point at which to commence the use of stimulants, we may also be aided by watching their operation. Being ill-timed, they commonly produce pain in the head, or delirious wanderings, or morbid vigilance, or stricture of the breast, or restlessness and anxiety, with a hot dry skin, parched tongue, and a quick, small, and corded pulse." 147.

In the arrangement of particular *stimulants*, our author has been a little embarrassed; for practical convenience he thinks they may be all brought under the three heads of *incitants*, *narcotics*, and *antispasmodics*. Under the first head are placed carbonate of ammonia, camphor, ol. terebinthinæ, phosphorus, piper indicum, caryophylata, cubebs, ginger, alcohol. Under the head of narcotics, we have opium, lactucarium, tela areneii, hyoscyamus, conium, belladonna, solanum nigrum, solanum dulcamara, stramonium, prunus lauro cerasus, digitalis, nux vomica. Under the head of antispasmodics he places; musk, castor, assafœtida, valerian, allium sativum, ol. succini, ol. cajuputii, ether. On each of these Dr. Chapman makes many judicious observations, at some of which we shall glance.

Camphor. Speaking of that very curious and often fatal disease, delirium tremens, Dr. Chapman makes the following remark.

"Without entering into any disquisition relative to the nature of that species of mania excited by intoxication, I shall remark, that the approved plan of managing it, consists in the occasional use of emetics, and in the steady exhibition of the most powerful stimuli Even though it may seem to be forbidden by contra-indications, we ought not to depart from this course. The symptoms of vigorous and inflammatory action incident to the case are always fallacious, and the system, for the most part, very speedily sinks into a dangerous degree of debility by the slightest depletion.

"Of all the remidies which I have ever tried, combinations of camphor and opium are the most successful in this disease: and it is, indeed, not easy to conceive of any mode of practice more efficacious. My rule is to give these medicines in large doses, till the patient becomes composed, and then to sustain his strength by a generous diet, and cordial drinks. The preceding remarks have reference more particularly to cases occurring with habitual drunkards, and where the constitution is shattered, and broken down." 171.

We lately examined the body of a gentleman in the prime of life, and of very strong constitution, who fell a victim to this disease. Though he had all the *fallacious* symptoms of phrenitis—red ferretty eyes, throbbing of the carotids and temporals, dry tongue, and raging delirium, there was not a single trace of vascular fulness of the brain, and we had the assistance of Sir Astley Cooper, Mr. Freeman, and one or two other medical gentlemen, in examining it. We found, however, some earthy depositions in the falciform process, and very many spiculæ of bone rising from the basis cranii. But after all, these could only have been predisposing causes. The ingurgitation of inebriating materials was the exciting cause of the disease.

Oil of Turpentine. More than 20 years ago Dr. Physic of Philadelphia, was in the habit of employing this medicine in the grave fevers of that climate. Dr. Chapman in the year 1820, being convinced from dissections as well as symptoms, that the endemic yellow fever of the United States, "consists in a peculiar inflammation of the stomach, caused by the action of effluvia upon it," instituted a new practice, in conjunction with Dr. Hewson, at the Public Hospital of Philadelphia.

"After moderate evacuations of the bowels, we exhibited the turpentine, in doses adapted to the emergency. Commonly a drachm was given every hour or two, sometimes alone, and at other times with carbonate of ammonia, or some essential oil, which rendered it less disagreeable to the taste, and made the stomach more retentive of it.

"Of sixteen cases managed in this way, twelve recovered. Compared with what was done in the city by other modes of treatment, this success is exceedingly encouraging. It should, too, be recollected, that the patients were brought into the hospital, very often, in an advanced stage of the disease, and when much reduced by venesection and other evacuations. Unless it be applied at the commencement, or very early in an attack, the turpentine, in common with all remedies, will be, for the most part, unavailing." 175.

As the idea of gastritis cured by so stimulating a remedy as oil of turpentine, might appear to involve a degree of incongruity, our author has entered into some explanation on the subject. He properly enough observes that nothing is more delusive than the doctrine of identity of diseased action, or of remedial agency.

"We cure some inflammations by reduction with the directly depleting measures, while others are overcome by counteraction at once subverting the morbid movements which are going on at the time, in a part, or the whole of the system.

"Do we not see this in the efficacy of certain stimulating collyria in ophthalmia,—in the copaiba and cubebs in gonorrhœa—in the eau medicinale in gout—in mercury in syphilis,—in the capsicum in cynanche ton-sillaris—in mercurial ointment in erysipelas,—not to adduce other instances, which might be done by appealing to the records of the Brunonian practice, which was often successfully conducted on this principle?

"Of the *counter-agency* of turpentine in scalds and burns we are aware. The stomach, in yellow fever, is in a state of inflammation, probably of a somewhat similar nature, which is overcome in the same way. This conjecture derives support from the consideration, that, in many instances, the turpentine is soothing in its effects, removing the sense of heat and irritation in the stomach, subduing the force of vascular action and general excitement, and inducing, at once, a condition altogether of more comfort and security Nor is it to be overlooked, that, without any previous intercommunication of opinion, the turpentine was prescribed, with great advantage, nearly about the same time, in the plague at Malta,* and is strenuously recommended as the best corrective of the inflammation of the stomach, from the acrid poisons,† two cases, in many points, approaching so closely to yellow fever. These coincidences are very striking, and in every view deserve our most serious attention." 176.

Still our author does not propose this remedy confidently in yellow fever. He believes that the more violent forms are irremediable under any treatment.

He has been in the habit of employing oil of turpentine in peritoneal inflammation for many years past with decided success; and he thinks it may be equally useful in enteritis.

Alcohol. Moderately used, this is one of the least equivocal of the purely cordial and exhilarant stimulants; but urged to any extent it loses this power, and produces dulness and stupefaction—hence it is first a stimulant and subsequently a narcotic. Its effects indeed on the human frame are too familiar to need description. As a medicine, it is rarely necessary, for there are but few cases in which it is preferable to wine, *per se*. It is a sacred, but almost a needless duty in the physician to unite with the moralist, the divine, and the economist, in reprobating the consumption of this baneful article. Chained, by a species of infatuation to the use, or rather the abuse of these intoxicating beverages, as fast as Prometheus to his rock, mankind have hitherto seemed equally heedless to the admonitions of the wise, and to the suggestions of their own understandings in this respect; and so great is the moral as well as the physical mischief, that the emptying of Pandora's box was but the type of what has since happened in the diffusion of rum, bran-

* "Calverts on the Plague." † "Orfila on Poisons."

dy, gin, and whiskey, among the human species. This evil exists to a still greater extent in the new than in the old world. Poverty among the lower classes restrains the indulgence in this country, where the materials are such an enormous price —and public opinion has greatly checked inebriety among the upper and middling ranks of life. In America, on the other hand, more money is earned by the working classes of society, and spirituous potations are not one third the price they bear in England. With such temptations in their way, intoxication must ever be a darkening feature in the complexion of the common people of the new world.

"Compared with ardent spirits, the action of wine is infinitely less injurious in a state of health; and, as a remedy in disease, it evinces the same superiority. The effect it produces is slower and more permanent, combining also qualities, which, while they blunt the ardency of the stimulus, afford no inconsiderable portion of nutriment, by which the system is sustained and invigorated." 196.

Since the downfal of Brunonian principles, medical men rarely venture on the use of spirituous or vinous stimulants in febrile diseases, unless the type be of a very bad kind—and even then, not at the beginning of the disease, but to assist the powers of nature towards the crisis or close of the malady.

"As the excitability of the system in these cases is nearly expended, a very copious exhibition of wine is generally demanded, in order to attain its beneficial effects. It is sometimes drunk in quantities so large as to be incredible, were we not acquainted with the fact which I have mentioned, of the great insusceptibility to its impression. Nevertheless, even here, we are cautiously to regulate its administration by the effects it manifests, since, urged too far, it might induce indirect debility, and thus cause irreparable mischief." 197.

Rum may always be considered as beneficial if it render the pulse fuller, slower, and stronger—when it lessens or removes delirium, calms irritation, and induces sleep, and *vice versâ*.

Opium. Medical sentiment still continues rather divided on the modus operandi of opium, "though the preponderance is decidedly in favour of its stimulating effects." From a number of experiments made on opium by our author and others, the following results have been deduced.

"It appears that "opium applied to the eye, internal membrane of the nose, urethra, or other similar sensible surface, or to any other part of the body, deprived of its cuticle, is first productive of pain, a sense of heat, and of inflammation, and after the cessation of which symptoms, the natural, or morbid sensibility of the part is diminished.

"Exhibited internally, in an adequate dose, opium produces the following changes in the *vital functions.*

"The pulsations of the heart and arteries are first rendered quicker, fuller, and stronger, and afterwards slower than at the time of taking it. With the increase of frequency in the pulse, the heat of the body is generally somewhat augmented. The respiration is little affected, except a large dose has been taken, towards the conclusion of the operation of which, it becomes slow, stertorous, and laborious.

"The *natural functions* are thus disturbed The appetite and digestion, from unusually large, or frequently repeated doses, are generally impared, and vomiting often induced: the discharges from the intestines are diminished or suppressed, secretion and excretion are impeded in every part of the system, except the skin, the discharge from which is evidently augmented, sometimes preceded or attended with a sense of pricking or itching of the skin, terminating now and then, in a species of miliary eruption.

"The *animal functions* are affected as follows:

"The hilarity of the mind is by degrees augmented, and continues to increase, if the dose be considerable, until the delirium of intoxication is produced, which, as when resulting from spirituous liquors, is attended in different constitutions with different symptoms. It is, however, more generally productive of a pleasant and joyous state of the mind than the contrary, and, in many, it occasions an increased disposition to venery. After these effects have continued for some time, they are succeeded by others of a very opposite nature: the mind becomes gradually dull and languid, the body averse to motion, little affected by customary impressions, and inclined to sleep. If the dose has been considerable, all these symptoms continue to increase, and tremors, convulsions, vertigo, stupor, insensibility, and deprivation of muscular action, appear variously complicated, and in various degrees, proportioned to the excess of the dose, and peculiarity of constitution in the sufferer." 204.

On the application of opium in particular cases of disease we need not dwell. Dr. Chapman's directions and observations are very generally judicious.

Tela Aranei.—It is a very old popular belief that the spider's web cures agues. But among medical men, till within the last twenty years, little credit was given to this popular superstition as it was thought. In Dr. Robert Jackson's last visit to Philadelphia he mentioned the efficacy of the remedy as indisputably ascertained, and averred (what he afterwards published) that, as an anodyne to allay pain or calm irritation, it proved vastly superior even to opiates. Dr. Broughton, of South Carolina, formerly one of Dr. Chapman's pupils, experimented on the substance in question, and confirmed, in all material points, the statements of Dr. Jackson. As the writings of this able and zealous physician are not sufficiently diffused among our professional brethren, we shall here introduce a quotation on the subject in question from one of his works.

" 'I think I may venture to say, that it prevents the recurrence of febrile paroxysms more abruptly, and more effectually than bark or arsenic, or any other remedy employed for that purpose with which I am acquainted: that, like all other remedies of the kind, it is only effectual as applied under a certain condition of habit; but that the condition of susceptibility for cob-web is, at the same time, of more latitude than for any other of the known remedies. The cob-web was rarely given before the subject was prepared by bleeding, emetics, or purgatives; and, given to a subject so prepared, it seldom failed to effect a cure comparatively permanent; relapse, or conversion into another form of disease, being, upon the whole, a rare occurrence where the disease had been suspended by this remedy. If the cob-web was given in the time of perfect intermission, the return of the paroxysm was prevented; if given under the first symptoms of a commencing paroxysm, the symptoms were suppressed, and the course of the paroxysm was so much interrupted, that the disease for the most part lost its characteristic symptoms. If it was not given until the paroxysm was advanced in progress the symptoms of irritation, viz. tremors, startings, spasms, and delirium—if such existed as forms of febrile action, were usually reduced in violence, sometimes entirely removed. In this case, sleep—calm and refreshing, usually followed the sudden and perfect removal of pain and irritation. Vomiting, spasms, and twisting in the bowels, appearing as modes of febrile irritation, were also usually allayed by it: there was no effect from it where the vomiting or pain was connected with real inflammation or progress to disorganization. In cases of febrile depression, deficient animation, and indifference to surrounding objects, the exhibition of eight or ten grains of cob-web was often followed by exhilaration;—the eye sparkled; the countenance assumed a temporary animation; and, though the course of the disease might not be changed, or the dangers averted, more respite was obtained from a pill of cob-web than what arises from, or belongs to the action of wine, opium, or any thing else within my knowledge.

" 'Farther, the power of cob-web has been tried, and its good effects have been proved, in other forms of irritation besides those that are strictly febrile. In spasmodic affections of various kinds, in asthma, in periodic headaches, in general restlessness and muscular irritabilities, its good effects are often signal. The cob-web gives sleep, but not by narcotic power:—tranquillity and sleep here appear to be the simple consequence of release from pain and irritation. Cob-web has also been applied locally,—under my own eye, to ulcerated and irritable surfaces with singular good effect. At first, the pain which it occasioned was sharp,—but it was momentary; and the surfaces, which had been painful, irritable, and untractable to other applications for weeks or months, were healed up in the course of two or three days at farthest;—the experiment was made on superficial sores only.

" 'I have not made a chemical analysis of the substance in question; for my chemical knowledge is not of the kind which would enable me to conduct the operation correctly. The cob-web may, perhaps, be thought to belong to the class of poisons; but it is somewhat singular, that I have not been able to discover much difference of effect from a dose of ten grains and from a dose of twenty. The changes induced on the existing state of the system, as the effect of its operation, characterize it as powerfully stimulant. 1. Where the pulses of the arteries are quick, frequent, irregular, and irritated; they become calm, regular, and slow—almost instantaneously after the cob-w-

passed into the stomach: the effect is moreover accompanied, for the most part, with perspiration and perfect relaxation of the surface. 2. Where the pulses are slow, regular, and nearly natural; they usually become frequent, small, irregular,—sometimes intermitting. 3. Where languor and depression characterize the disease; sensations of warmth and comfort are diffused about the stomach, and increased animation is conspicuous in the appearance of the eye and countenance. 4. The cob-web, applied to a bleeding surface, occasions a very sharp and transient pain:—the bleeding instantly ceases.—The cob-web here recommended is the produce of the black spider which inhabits cellars, barns, and stables: that which is found upon hedges in autumn does not possess the same power, if it be actually of the same nature.' " 241.

The spider's web has been, for some time past, pretty liberally precribed by Drs. Physic, Chapman, and Dewees in Philadelphia; and though they attach different *degrees* of value to the article, " they are all satisfied that the representation of its virtues (to which we have referred) is very little, if at all exaggerated." In doses of five grains, repeated every fourth or fifth hour, Dr. Chapman has cured some obstinate intermittents, suspend the paroxysms of hectic, overcome morbid vigilance from excessive nervous mobility, and quieted irritation of the system from various causes. That used by our author was collected in cellars, and was probably the product of the common black spider. He has also satisfied himself that the web found in light exposed situations, the product of the gray spider, is inert—and so is the web of the other, when not recent, which may be known by its glutinous feel.

Passing over a number of narcotics, and among the rest the prussic acid, which our author observes has come forward " with bloated promise and lank performance," we come to the class of antispasmodics, but Dr. Chapman's remarks on these need not detain us.

Hydrargyrus. The eleventh section is on the various preparations of mercury. We shall here quote a passage from this section, as it bears on a recent investigation carried on for a considerable time, with some clashing of sentiment, in this metropolis.

" As a part of the treatment of dysentery, the mercurial medicines have been deemed very important. By Cleghorn, who acquired so much reputation by his work on the diseases of Minorca, six or eight grains of calomel, with one of opium, were exhibited with a view to purge, and, he declares, that it answered more effectually than any other measure. I have already mentioned* the advantages derived

* " Cathartics, opium, &c."

from large doses of opium and calomel in those unrelenting obstructions of the bowels dependant on spasm: and it is quite conceivable, that, on the same principle, such a combination might be useful in certain cases of dysentery.

"Cleghorn, as I have stated, originally prescribed calomel and opium as a purgative; but he was ultimately convinced of the superior efficacy of salivation in these cases. This taking place, he even asserts that a cure invariably followed. The practice was nearly as successful in the hands of Lind, in the West, and was found highly so by Balfour, and by Yeates and Maclean, in the East Indies.

"Having in another place detailed my mode of managing this disease, I have now little to say. Combinations of calomel, ipecacuanha, and opium, with a view of quieting irritation and determining to the surface, have, at all times, been a favourite prescription of mine. To this I shall only farther remak, that in protracted or chronic dysentery, I have frequently salivated, and found it sometimes the only means by which I could effect a cure. Yet, in the acute forms of the disease, I should presume that it can hardly be expedient to resort to this unpleasant alternative; though, it is probable, that whenever salivation is excited, it will have a beneficial tendency.

"This opinion is applicable chiefly to the disease as it appears in this city. No doubt, in warmer climates, as in the East and West Indies, and in the southern sections of our own country, where the hepatic system is deeply implicated in this and in most other affections, the mercurial treatment is much more frequently demanded. Dysentery among us is an inflammatory affection, calling, in the first instance, for the prompt and free use of all the direct depletory measures. To this general character of the disease there is one exception. In our poor and depraved classes of society, it now and then assumes the typhoid state, and such is generally the case when it breaks out in crowded and ill-ventilated apartments. Depletion, under such circumstances, cannot be urged to any extent, and I have early put the system under the mercurial impression, with great effect.

"Mercury, as a dernier resource in diarrhœa, should not be overlooked. Cases of a very lingering and obstinate nature I have repeatedly seen yield to this remedy. It is, indeed, almost indispensable where indications exist of derangement in the chylopoietic viscera: and even if this be not the case, it proves of service by instituting a new set of actions in the intestines.', 329.

In dyspepsia our author follows the Abernethian practice; and he alludes to a particular form of this complaint which he believes to depend "on a slow species of inflammation of the stomach," not confined to intemperate livers, but affecting also people of the most regular habits.

"Cases of this sort may be distinguished, by the strong sensations of heat and pain which are felt in the stomach,—by tenderness on pressure of the epigastrium, and by a pulse hard, corded, and quick. There is also, after a while, an irregular, diminutive, hectic fever, with suffusions of the cheeks, yellowness of complexion, a hard dry cough, pains in the side, and some wasting of flesh and stength. The condition, in short, has so many of the aspects of the incipient

stage of the tubercular consumption, as to be very readily confounded with it I have indeed known it, sometimes, to induce pulmonary disease of the most serious character. An irritation of the stomach, long continued, will sympathetically extend itself to the lungs, whether it be from sordes, worms, indigestible substances swallowed, or any other cause. Cases illustrative of this principle have been repeatedly recorded, and must have come under the notice of almost every practitioner." 830.

Venesection is recommended in this form of dyspepsia, with very minute doses of ipecacuanha. "This failing, mercury may be added, or used alone to the point of moderate salivation, which, with a blister to the epigastrium, and a duly regulated diet, I have found generally succeed." We are induced to give the following extract, as it bears on another legal investigation of medical practice, in which we conceive one of our brethren (Dr. Veitch) was very illiberally, not to say unjustly, treated.

"To treat *mania* by the mercurial medicines, if not an American practice, is certainly much more prevalent among us, than in Europe. It is one, at least, to which the medical men of this city are exceedingly devoted. Yet, I do not think that we have determined, with sufficient precision, the cases to which it is best suited, and hence the results of our experience are very different, and even contradictory. It is resorted to in each form of mental derangement, as well in furious mania as in melancholia, and, perhaps, with nearly equal success. All that is particularly attended to in the employment of the remedy is, to see that the system is properly reduced, or, in other words, brought down by bleeding, purging, and other evacuations, to the point of salivation This being premised, mercury unquestionably will often effect cures under circumstances apparently the most discouraging. It is, in short, a principle with most of our practitioners to appeal to salivation as a resource in all cases of insanity, which have pertinaciously resisted other modes of treatment, and, though this may be empirical practice, it is fully justified by the frequency of its success.

"That the utility of mercury in the mental affections may in part be ascribed to its general powers over disease, seems highly probable. But I cannot help entertaining the conviction, that it does infinitely more good by specifically acting on the chylopoietic viscera, correcting the derangement in this system of parts, which would seem to be the cause, in very many instances of the morbid states of the mind. Extraordinary as this *location* of insanity may appear to such as have not contemplated the subject, it neither wants the support of authority, nor the evidence of analogy, or of positive facts. It is now pretty generally conceded that the whole class of neuroses is very frequently of gastric origin. Considering the close affinity which exists in the physiology as well as pathology of the nerves and brain, it is surely no great stretch of generalization, to embrace within the same view the two sets of cases.

"Can it be denied that the cerebral and mental disorders are frequently induced or imitated by impressions on the stomach and its dependencies from the narcotic poisons, worms, and other causes? Every practitioner of much experience has probably seen this repeatedly illustrated in apoplexy, palsy, hydrocephalus, cephalalgia, in the depravation of vision, and in mania, melancholia, and hypochondriasis, all which is abundantly confirmed by dissection.

"It had long been a matter of surprise with pathologists, that, in the diseases of the mind, the morbid appearances of the brain should be so few and slight; sometimes, indeed, none whatever existing, even though the case were furious mania. Being conducted under the predominant notion, that the brain must necessarily be the seat of these affections, examinations were rarely extended beyond this organ; and consequently, the real source of mischief continued unrevealed. But of late, the cultivators of morbid anatomy in Europe have thrown a very clear and distinct light on this subject, demonstrating incontestibly, that we are to seek in the chylopoietic viscera for the causes of many of the nervous and mental complaints. The facts thus developed, have laid the foundation of a correct pathology with respect to this interesting set of diseases, and will, no doubt, as has already in some measure been done, lead to a more exact and successful mode of treatment. But, while I maintain generally the connexion of these cases with certain disordered states of the abdominal viscera, I am not at all disposed to deny, that they may take place as idiopathic affections of the cerebral and nervous systems." 337.

In respect to syphilis our author is satisfied, from wide experience, that mercury is to be preferred to every other remedy. And he properly observes, that a very moderate course is, in general, to be preferred to a rapid introduction of the remedy and a profuse salivation. But our author's practice has one peculiar feature which appears to us to involve great inconsistency, and hold out a dangerous precept. Chancre he treats entirely as a local disease, and by local remedies. He does not exhibit mercury for the chancre, but only when the disease appears in the throat, or other parts of the body besides the genital organs.

"Allowing, however, that this expedient (local application to the chancre) occasionally fails, and the system becomes affected, where is the increased evil or mischief? Let the patient, in other words, return to me after a few weeks, with an ulcerated throat, and other symptoms of confirmed lues, what happens? Entertaining, as I do, the conviction of the superiority of the mercurial treatment, I should instantly commence it, and with the assurance of effecting a cure as promptly, and with as little inconvenience, as if it had originally been employed. As, therefore, no more mercury is required to eradicate, than to prevent the complaint, there cannot be a comparison between the two modes of practice in these cases.

"But I am prepared to go farther, and to avow my total want of confidence in the powers of mercury to cure chancre, or hinder the contamination of the system. My reason for thinking so is, that I have several times known a chancre take place, and extend its ravages as usual, though, at the time, the individual was fully under the mercurial

impression. Such examples are by no means rare in the public institutions of great cities. Thus, we see patients, while in a deep salivation for dropsy, hepatitis, consumption, or some other complaint, contract chancre, followed by buboes, &c. Whether the disease, if not checked, would farther extend itself, my experience does not allow me to say. The fact seems to me, that chancre, which is a mere local injury, is so seated on the confines of the system, that it cannot be approached, or at least very slowly, by general remedies, and must be managed with direct applications. No more, in my opinion, can we cure it by mercury exhibited internally, than suspend the career of the vaccine or variolous pustule, or disperse a paronychia, or heal any minute and ordinary sore." 356.

Thus, then, because Dr. Chapman has "several times known a chancre take place" while a man was under a mercurial course, he concludes, in the direct face of universal experience, that mercury has no power over primary sores! What practitioner has not, hundreds of times, seen a chancre remain perfectly stationary, or gradually enlarging, till the mercurial odour appeared on the breath, and from that instant put on a new and healthy appearance? And is this wide and universal experience to give way before a hypothetical fancy, or a few insulated anomalies?

Here we must close this article, as the two concluding sections of Dr. Chapman's work, on Tonics and Astringents, present nothing on which we could dwell with advantage. Our readers have been put in possessson of ample materials and extracts from these volumes to enable them to judge for themselves respecting their merit, which is undoubtedly very considerable. There is as much originality as could possibly be expected, now-a-days, in Dr Chapman's observations; and his didatic precepts are, with a few exceptions, remarkably judicious.

V.

*Thorarcic Percussion and Abdominal Pressure.**

Two distinct processes contribute to the advancement of practical medicine; reasoning and observation. The first, commonly exaggerated or premature, leads frequently to error; and hence doubtless it is that medicine has long been considered a conjectural science, destitute of certainty, and unworthy of credit: observation, on the other hand, an inexhaustible source

* Last edition of Desault's surgical works, by Reux.

of facts, presents invariably the image of truth—to those at least who are skilled in the inquiry.

Amid the numerous and infinitely varied derangements to which our frail organization is obnoxious, thoracic diseases have ever held a conspicuous rank, as well from their violence as from the frequent difficulty attendant on the discrimination of them. Hence the physicians of all ages have been anxiously employed in deliniating their peculiar characters; and the sketch has been augmented or curtailed by successive observers, with the view of rendering it more unequivocal or concise.

The employment of percussion of the chest to elucidate the diagnosis of thoracic diseases, merits, amid these numerous efforts, particular notice. It was probably unknown to the ancients. This discovery, the honour of which is attributed to Awenbrugger,* a physician of Vienna, long slumbered in the oblivion, to which, on the decease of its author, it had been consigned; till, in our days, revived by Corvisart. The advantages which he has derived from it are universally known; in his hands, it has become signally instrumental in removing the dense veil with which diseases of the thorax, particularly those of a chronic nature, have hitherto been obscured.

Bichat was admirably calculated by his genius to improve the science, upon which all the energies of his great mind were concentrated. From the dawn of his professional career, he sought, in treading the steps of his more illustrious predecessors, to establish, upon the results of observation and experience, the impregnable basis of his reputation. We are now contemplating his labours only as far as they regard our present subject. He confirmed many of the results obtained from percussion of the thorax: others assumed, in his view, a dubious aspect; and we shall presently see that he made a more correct and extensive application of them to the distinction of acute diseases.

The idea of abdominal pressure was suggested to him by a remark which physicians have long since made. It was observed that patients, suffering from hydrothorax, aneurism of the heart, and other organic lesions of the thorax, experienced a degree of uneasiness amounting to suffocation, whenever the stomach became distended. Hence this symptom was con-

* Awenbrugger published his discovery, and the results of his experience respecting its application, in a Latin work. Corvisart, some years since, promised a translation of it into French, illustrated by his own comments. We have long been inquiring for this publication, but cannot ascertain whether the design of the celebrated pathologist was ever carried into execution.

sidered as one in the series, essentially attendant upon these diseases.

If any other circumstance contribute to produce this phenomenon, it must principally arise from the mechanical distension of the abdominal parietes, and from the contraction of the thorax by the elevation of the diaphragm. Now, to effect this elevation in a prompt manner, by compressing from below upwards the epigastrium or hypochondria, according to the seat of the affection which is the object of our research; to watch attentively the effect produced upon the patient; and to apply the result of this manual experiment, in order to acquire a certainty of the existence of any particular disease;—in this consists abdominal pressure, as a new mean of aiding the diagnosis of thoracic maladies.

Were no greater advantages than those resulting from percussion of the chest offered by this process, the publication of it would be by no means destitute of utility, and this Memoir might be entitled to attention; for in diseases thus obscure, and characterized only by the assemblage of a number of signs which are all uncertain when separately viewed, any new feature or mean of diagnosis, added to the sum of those already known, must be favourably received. But abdominal pressure furnishes, in many cases, results more certain that percussion: and again, this last is more generally applicable to the discrimination of diseases than has hitherto been supposed. The developement of these propositions constitutes the express object of our Memoir: in accomplishing it, we shall apply, in a comparative manner, these two methods to the investigation of the signs of acute and chronic affections of the chest. We begin with the first.

The interest which we feel in seizing the distinctive characters of the diseases affecting contiguous organs, when their difference of seat is not clearly established by the symptoms arising from them, can only be excited by the desire of classifying them in a rigid and precise manner, or by the necessity of instituting an important modification in their treatment. When these motives are combined, such anxiety is amply justified. This idea is naturally suggested by the numerous dissentions which have arisen upon the frequently agitated question—Exists there a pleurisy distinct from peripneumony? and, admitting that, can we by certain characters distingnish inflammation of the pleura from that of the lungs?

In the existing state of anatomical science, we can correctly appreciate all those reasonings, by the aid of which inflamma-

tions of the lungs, and of their membranous coverings, were, for a time, confounded in theory and practice, under the common idea of fluxion of the breast. We are now perfectly convinced, that organs, possessing a distinct structure and animated by a peculiar life, cannot correctly be confounded with regard to their morbid affections: and already many of those, who at first refused their assent to the preceding proposition, have relaxed from their severity in analogous cases, and been compelled, by the inspection of bodies, to acknowledge the existence of peritoneal inflammation distinct from that of the subjacent coats of the stomach, intestines, bladder, and hepatic structure; inflammation of the pericardium separate from that of the heart; and inflammation of the membranes of the brain, the substance of the latter organ remaining completely unaffected.

It must, however, be allowed, that, in the number of physicians who have pronounced a negative upon the foregoing question,* some have been influenced by the real or disputed observation of Servius; who says, that upon the dissection of three hundred subjects dying at Rome of thoracic inflammation, he had invariably found congestion of the lungs, the pleura exhibiting no trace of previous inflammation. But whoever reflects properly upon this remark, admitting it to be correct, must perceive, that, far from being favourable to the opinion of the physicians in question, it, on the contrary, proves, first, that the substance of the lungs may be separately inflamed; secondly, that this condition is much more dangerous, and more frequently fatal, than inflammation of the pleura, since Servius, in his numerous dissections, observed not one instance of the latter disease.

Some of the older pathologists, and, in our times, Professors Corvisart and Pinel, have admitted the existence of pleuritic inflammation distinct from peripneumony. Now, to demonstrate the influence which a correct knowledge of the diagnosis of these two diseases may exert upon the judgment of the physician, and upon his treatment of them, is, in our opinion, the best justification of their researches that can be advanced.

In the first place, peripneumony must necessarily be more destructive than pleuritic inflammation. In fact, even had the observation of Servius, before alluded to, been wanting, that reasoning by which we have already been taught to conceive the possibility of their isolated existence, would surely induce

* Sennertus, Regius, Boerhaave, Hoffman, Bonetus, Morgagni, Haller, Cullen, Portal, are among the more celebrated of these writers.

us to augur more unfavourably of a case in which the substance of the lungs themselves is immediately affected, than of that in which it suffers only in a secondary manner, and from contiguity, as must necessarily happen in inflammation of the pleura.

Secondly, if, however, on one hand, peripneumony be more impetuous in its progress; if it alarm more by the vehemence of its symptoms; yet, on the other, pleurisy is more formidable in in its consequences. Thus, while we frequently see patients carried off in a few days by the intensity of the inflammatory action of the first, the second rarely proves fatal but by the formation of pus, which is one of its immediate consequences; or by the chronic inflammation, which readily becomes established, and soon terminates in serous effusion.

Thirdly, it will be readily perceived, that two diseases, thus distinct in situation, may admit of certain modifications in their treatment. For example, does not local abstraction of blood offer peculiar advantages as a remedy in inflammation of the pleura, since part of this membrane lines the thoracic parietes, and has, doubtless, intimate connexions with the common integument? Actuated by this idea, Bichat gave an almost exclusive preference to the application of leeches upon the painful part of the chest. Frequently, when the inflammation ran high, he, soon after the application of them, covered the seat of pain with a sinapism or blister. The success resulting from this practice confirmed his opinions upon the inutility of general bleeding in pleuretic inflammation. On the contrary, the situation of the lungs, too deep within the chest to receive the influence of topical remedies; the fear of their excessive and inevitable fatal congestion; their intimate connexion with the circulation of the great vessels;—all these considerations authorize general abstraction of blood in peripneumony, and even call for its repeated employment, with the observance, however, of the prudent caution of not carrying it too far, if we would avoid the just reproach of the celebrated Morgagni: *Jam dictum, nullâ re magis in peripneumoniâ accelerari mortem, quàm sputi suppressione. Hæc autem sæpe accidit propter intempestivas, præsertim in senibus, missiones sanguinis: quanquam plures sunt medici qui ægros ob id interimunt, quia nesciunt ipsi quiescere.*

Do not the preceding observations show the importance of accurately investigating the diagnostic signs of pleuritic and pneumonic inflammation? Certainly. And now, in the next place, let us inquire what respective utility the two processes of percussion of the chest and abdominal pressure may offer to us in this investigation.

The first, which in this as in other cases, is performed with the extremities of the fingers of one hand united, produces upon the diseased side, in *peripneumony*, a sound, of the obscurity of which one may best judge by comparing it to that which results from striking, in the same manner, the sound side of the thorax. *In pleurisy*, on the other hand, no difference can be perceived in the sound arising from percussion of the two thoracic cavities.

The absence of any sensible result from abdominal pressure exercised upon a patient, in whom the existence of pleurisy may be suspected, is contrasted, in a striking manner, with the involuntary cough, the profound oppression, and sense of suffocation; which are the sudden effects of this pressure exercised below the costal cartilages of the affected side, so as to elevate the diaphragm, upon a subject in whom the combination of many other symptoms indicates the existence of inflammation of the lungs.

If, then, we find, united in the same patient, on the one hand, a clear sound of the painful side of the chest with insensibility of abdominal pressure; and, on the other hand, smallness and rapidity of respiration;—increased intensity of pain upon strong expiration,* because then the pleura participates the dilation of the thoracic parietes;—impracticability of lying long upon the affected side, because, in this situation, the lungs must necessarily press upon the inflamed pleura, and augment the pain;—and, lastly, increase of this pain upon tolerably firm pressure of the intercostal spaces;—pleuritic inflammation is with certainty indicated. The fatal issue and dissection of a case exhibiting all these characters, have frequently confirmed to Bichat the accuracy of the opinion which he had previously delivered respecting it. To these phenomena we may farther add the character of the pain which, in pleurisy, is poignant or somewhat lancinating; for, if there have been a period in the progress of science, in which it appeared ridiculous to assign a distinct character to the pain in pleuritic and pneumonic inflammation, the more profound attention with which the laws of our organization have since been studied, permits us, in these more enlightened days, to cherish no doubt upon the subject. In truth, we now know that each organ has its particular modification of pain, just as, in the natural state, the vital properties by which it is animated, display a peculiar character.

Peripneumony, again, is signalized by the following pheno-

* This is, we imagine, a typographical inaccuracy.—It should have been written *inspiration*.

mena. The patient makes great efforts of inspiration, in order to supply the suspended functions of one part of the lungs. Here also expiration is painful, because the parietes of the thorax, in contracting, compress the inflamed organ in a greater degree, as the preceding inspiration has been more deep. The patient cannot lie down upon the sound side: now this phenomenon is presented, whenever the respiratory process is diminished in one of the lungs, as well in the case under consideration, as in hydrothorax. The pain is ordinarily deep and obtuse. Lastly, from what has been already observed, the suffocation, resulting from abdominal pressure, coincides, in peripneumony, with the obscure and dead sound obtained from percussion of the patient's chest.

It will be seen, that in presenting the sketch of the distinctive phenomena of two diseases, hitherto frequently confounded by physicians, we have solely kept in view their peculiar symptoms—in other words, those which necessarily result from the local affection. We call them peculiar or proper symptoms; because, in all diseases which have a determinate seat, this order of phenomena is first developed; and afterwards those resulting from the disturbance which is necessarily excited in neighbouring or contiguous organs. Thus, in pleurisy we have almost always cough and expectoration, simply mucous or streaked with blood. The hickup and vomiting, the diarrhœa or costiveness, which arise in peritoneal inflammation, are again symptoms of this nature, dependant on the connexion of the inflamed membrane with the diaphragm, stomach and intestines. The same may be said of the phrenitis which induces delirium and other symptoms characterising disturbance of the cerebral functions. Moreover, local affections exert their sympathetic influence upon many of the principal organs remotely situated; and hence springs that series of general phenomena which we can only explain by referring them to those functions upon the disturbance of which they seem to depend. Thus, derangement of the digestive powers is announced by those gastric symptoms with which the principal phlegmasiæ, in their origin, are so frequently complicated: thus, the increased action of the heart, constituting the attendant fever, announces the influence which this organ receives from them: and the flushing of the cheeks, a phenomenon sufficiently common in peripneumony and phthisis, denotes some change in the capillary circulation. It is indeed proved by the momentary suppression or increase of some, and often many, of the exhalations and secretions in constitutional or local diseases, that these functions are influenced by the general commotions of the system. The same

remark will apply, although less commonly, to the functions of animal life.

But all these symptoms, whether sympathetic or dependant upon the nearness or contiguity of organs in local diseases, are so variable, and present themselves under modifications so questionable, that no rigorous or precise data can be founded upon them. Much less can we avail ourselves of them to determine the character, or fix the diagnosis, of diseases; the distinct and isolated nature of which may be yet doubtful. Hence, I have ranged none of them among the characteristic phenomena of pleuritic or pulmonary inflammation. By Bichat, this distinction in the symptoms of diseases was first completely developed: others before him had but faintly and imperfectly surveyed this luminous doctrine. His ideas upon it were never made public. Although perhaps defective in clearness and precision, they are here communicated with fidelity.

The long details into which we have been involuntarily drawn respecting pleurisy and peripneumony terminate here. We were prompted to this digression by the desire of combining the principal facts not recorded in the works of Bichat, as far as they are connected with our present object.

Notwithstanding the judicious remarks of Senac, Vicq-D'Azyr, Cullen, Stoll, and others, inflammation of the serous membrane of the pericardium, denominated pericarditis, is yet a disease of character too uncertain and defective to invite discussion. Other circumstances, moreover, deter us from it. In the first place, Bichat possessed no opportunity of making any essential remark upon this disease. From his silence, it may even be doubted whether he had ever accurately observed its progress. Secondly, even supposing that a suspicion of its existence was excited by certain symptoms, we are by no means certain that any useful results, as regards the diagnosis, may be drawn from percussion of the chest and abdominal pressure.

Yet Bichat frequently observed the consequences of this inflammation; particularly the adhesions, more or less intimate, of the heart to the pericardium. These adhesions, of which the pathologist distinguishes several species, are analagous to those of the other serous membranes. Thus an opportunity was afforded him of verifying and confirming a remark, already made by several distinguished writers,* that these old and intimate adhesions may sometimes, by the restraint which they impose upon the actions of the heart, be mistaken for aneurisms of that organ.

* Lower, Vieussens, Senac, Morgagni, Vicq-D'Azyr.

By philosophic physicians, especially in later times, it has been admitted that a disease, however incurable in its nature, ought not the less to be well known and rigidly investigated: otherwise, in the uncertainty inseparable from confusion, we may direct against it remedies, which, although entitled to our confidence when judiciously employed, will, under opposite circumstances, prove pernicious to the patient. In this respect, medicine has indeed made, of late, considerable progress. Thus many forms of dropsy, so long regarded as diseases invariably idiopathic, and treated as such, have at last been found to result from internal changes of organic structure necessarily fatal, and to claim only the rank of secondary phenomena. Yet the very men who have acquired such honour in thus extending the circle of our knowledge, have not neglected to investigate the signs by which, in difficult cases, these effusions may be distinguished. On the other hand, their efforts to attain this most essential object claim for them additional respect.

It is, nevertheless, necessary to guard against the baneful extremes into which, by these views, some practitioners have been led: we mean, the almost utter abandonment, or at least improper restriction, of the operations employed, formerly perhaps in too indiscriminate a manner, for the cure of various dropsies. Thus it is with all the great events and revolutions in medicine. Time alone teaches us to estimate properly their importance and extent, and apply correctly to practise the knowledge with which they furnish us.

Whether then it be our object merely to relieve for a time the sufferings of those doomed to inevitable death, and thus prolong existence to the utmost possible term, or to effect that which is but too rarely attained, a permanent cure, we may perhaps with advantage more frequently employ those operations destined to evacuate the serous or other effusions of the various cavities; and examples of the benefit resulting from them, when undertaken in the first view, are not wanting. Some author, whose name we do not recollect, mentions that a woman had thirty times undergone the operation for ascites. We remember, ourselves, to have seen it performed upon a lady, of twenty-six years, for the seventy-second time. She died on the ensuing day. The results of the dissection, time has effaced from our memory. Employed even as a mean of cure, the evacuation of the fluid of dropsy has not invariably failed of success. Fortunate cases of ascites, thus cured, are recorded by authors. We have seen a woman completely recovered after

having eight times submitted to *paracentesis*. Examples of this success are, however, more rare with regard to hydrothorax. Yet there are some, the authenticity of which we cannot doubt. Among others, we may cite a very curious case communicated by Morand in the Memoirs of the Academy of Surgery.

Whatever then be the judgment which we form upon a case of effusion, and the treatment to be adopted, it is always necessary to distinguish correctly both its existence and its peculiar nature, in endeavouring to set up by nice observation a more complete assemblage of diagnostic phenomena.

The solidity of the parietes of the thorax, and their want of extensibility, are principal causes of the difficulty which we encounter in distinguishing the different collections, of which this cavity, as well as the pericardium, may be the seat. A penetrating and experienced eye may, indeed, upon viewing an assemblage of indeterminate circumstances, recognise the existence of effusion; but the generality of physicians can only acquire the decisive knowledge of the case by reiterated observation. For the last, then, it is useful to trace the certain characters of thoracic effusion. Before proceeding, we may remark that, although we treat here only of those spontaneous collections of which the pleura is susceptible, the ensuing observations may admit also of being applied to cases of sanguineous effusions of the chest, consequent upon the action of external violence.

Be it here observed, that the effusions which may take place in the pleura, do not all depend upon the same antecedent circumstances. Sometimes, for example, they succeed to pleurisy. In this case, the white flaky fluid is the product of the mode of suppuration, peculiar to serous membranes. Sometimes a liquid is found somewhat different from the preceding; which may have its source either in chronic inflammation of the pleura, or result from a miliary eruption; a kind of morbid affection peculiar to these membranes; first slightly noticed by Morgagni, but since more frequently remarked by Bichat. Lastly, in the more common cases, hydrothorax, formed by a limpid and transparent fluid, is a phenomenon consequent upon the lesion of some neighbouring organ, and most frequently of the lungs or heart.

Although by authors a great number of signs, diagnostic of thoracic effusion, has been indicated; many of them are so uncertain that it would be difficult to found upon them exclusively, a decided opinion. It would be superfluous to repeat here

what has been said, written, and repeated on this subject. We shall, therefore, claim attention only to three principal circumstances; which, when combined in a case, undoubtedly characterize the existence of thoracic effusion.

First. The patient can only lie down upon the side where the effusion exists; and the reason of this we indicated when speaking of peripneumonia (p. 574.) It is not because, in the opposite position, the effused fluid presses upon the mediastinum and thus contracts the sound cavity, as some have pretended. Still, this circumstance may contribute some little, although not in an absolute manner, to the production of this phenomenon.

Secondly. Percussion of the chest may offer, in this case, great advantages. The obscurity of sound which we obtain from this process, is indeed remarkable: and the extent of this obscurity will be proportionate to the quantity of accumulated fluid. In order to appreciate this circumstance correctly, and to exercise the percussion with success, it is necessary that the patient should be seated. The fluid is then contained in the most depending part of the cavity. There, consequently, we must strike the chest upon its anterior, posterior, and lateral aspects, listening attentively to the sound, and comparing it with that obtained by percussion of the other side of the chest. When the effusion is considerable, not only the result obtained is certain, but may be obtained to a very elevated part of the thoracic region. If, however, there be but little fluid in the pleura, the sound obtained may not be sufficiently obscure to admit of distinction from the natural state, or afford a sufficient ground of diagnosis. This inefficiency of percussion, in certain cases, joined to the fatigue which the patient experiences from the process, renders it a not invariably decisive means of diagnosis, especially in inexperienced hands: for it is a manœuvre which requires for its due performance a certain degree of practice. To this we may add, that with individuals of a corpulent habit, as with those of the female sex, the soft parts, covering the osseous parietes of the chest, absorb, in great part, sometimes even altogether, the strokes which it is our object to direct upon the latter.

Thirdly. If to the two phenomena just indicated, are united general agitation, cough, a sense of suffocation more or less considerable; originating from abdominal pressure exercised below the ribs of that side where the effusion is suspected to exist, so as absolutely to contract the cavity of the chest by an elevation of the diaphragm; we shall have acquired a certainty

of the presence of fluid. And this will be especially the case, if we have duly acquainted ourselves with the circumstances which preceded the effusion, and the morbid affections to which the patient has been, and again may be, obnoxious. Any doubt upon the subject will still farther be diminished, if, notwithstanding the extremely equivocal character of the general symptoms, we find complicated with them habitual cough, smallness and concentration of the pulse, occasional syncope, and a lightly œdmatous state of the integuments of the chest.

It may be suspected that, prejudiced in favour of abdominal pressure, we here give it an exclusive preference to percussion of the thorax. It is not so. We, on this subject, are delivering the ideas of Bichat rather than our own. His opinions were: first, that the former process possesses a decided superiority to the latter in certain cases where, as we have before observed, percussion, far from affording satisfactory results, may, on the other hand, mislead: secondly, that in other cases, where abdominal pressure does not offer the same advantages as percussion of the chest, it may yet always be regarded as a valuable resource in addition to the few we already possess: thirdly, that under some circumstances, it is not exempt from inconveniences; the knowledge of which it is important to acquire. For example, when the abdomen is greatly distended by a co-existent ascites, or by an effusion of serum into the cellular membrane of its parietes, pressure on this region may afford very feeble diagnostic light; and sometimes no accurate conclusion can be drawn from it. In some cases, the quantity of fluid effused into the chest may be so considerable, that by depression of the diaphragm, the liver is made to project considerably; and hence the complaints of a patient, thus circumstanced, upon pressure of the right hypochondrium, may be such as to induce a suspicion that the hepatic organ is diseased; and divert the attention of the physician from the real malady. Bichat had once, in such a case, the satisfaction of proving, by evacuation of the fluid collected in the chest, the accuracy of an opinion previously delivered by him, but contradicted by a celebrated man; who, upon an incautious examination, had declared that the liver was the seat of the disease.

One way of concurring essentially to the progress of medicine, is, rather to avow the different source of error and difficulty, than conceal them. Thus the attention of the observer will be kept upon the alert even under circumstances the least uncertain. This truth should be yet more forcibly inculcated with respect to the extensive class of organic affections. Although

reduced, as they now are, to certain well-known species in each organ or system of organs, they assume, nevertheless, such different forms, and show themselves under so many dubious aspects, that we ought constantly to be on our guard in order to avoid those mistakes in which the obscurity, reigning over them, may involve us. Thus all the characters of thoracic effusion may exist with diseases of a completely opposite nature. Corsivart relates a case in which, upon the examination of the subject, who was supposed to have died of effusion into the chest, one of the sides of that cavity was found filled with a very dense substance, of new formation, and every where adherent to its parietes. Every vestige of the lung had disappeared.

Other chronic affections of the lungs, as phthisis and inveterate catarrh, do not admit of the application of abdominal pressure or percussion of the chest. We, therefore, proceed to consider the least order of diseases; for the discrimination of which, experience has shown that these two processes may be usefully employed,—pericardiac dropsy and aneurism of the heart.

The first of these affections commonly originate from the same causes which induce hydrothorax: they are indeed common to all the serous membranes. But all the signs, hitherto pointed out as characteristic of it, have served only to deceive even the most judicious and profound observers. No physician, even at the present time, and with a combination of the greatest number of probable signs, will decidedly pledge his opinion upon the existence of pericardiac effusion. The difficulty of establishing certain rules of diagnosis in this case, ought not to surprise us. Deeply situated, and rendered by the solidity of the neighbouring parts, almost inaccessible to our scrutiny, the pericardium is yet farther removed than the pleura from every mean of investigation, except abdominal pressure.

On the other hand, almost all the symptoms, enumerated as diagnostic of this malady, belong equally to disturbance of the functions of the heart, from whatever cause originating; and these causes may readily be confounded in practice. Yet, one important remark may here be made: no *permanent* and *uninterrupted* disturbance can exist in any viscus, independently on organic lesion, unless it be determined by some constitutional peculiarity of the individual in whom it occurs. In truth, every derangement of the functions of the heart, arising from a remote cause, is transitory as the influence of that cause by which it has been determined. It remains for us then to inquire, when

the existence of organic disease is suspected, whether such disease be pericardiac dropsy or aneurism of the heart.

In the first place, it sometimes, although perhaps rarely happens, that the two diseases are complicated. Under these circumstances, we must direct our attention to the principal malady: It may be difficult to distinguish the secondary affection.

But more frequently, the substance of the heart itself being free from disease, the pericardium is filled consecutively with respect to the affection of some remote organ; as, for instance, one of the abdominal viscera. At other times, the effusion is preceded by symptoms of pericarditis. Again, the serous accumulation may, in certain cases, depend upon a peculiar affection of the pericardiac membrane, as a miliary eruption.

Under any of these three last circumstances, it becomes most important accurately to distinguish dropsy of the pericardium. Of the uncertainty of the signs, generally supposed to indicate it, we cannot be more deeply convinced than by meditating upon the two cases which Desault has recorded. In one of these, the symptoms, experienced by the patient, induced a suspicion of pericardiac effusion; and, on the death of the subject, which followed the evacuation of the fluid by Desault, an extensive cyst was found adhering to the pericardium. In the other case, pericardiac dropsy was not detected till the decease of the patient, who was destroyed by an adventitious malady.

Percussion of the chest is not applicaple to these cases; since, even in the natural state, the region occupied by the heart and its membranes, yields an obscure sound. Nevertheless, should the pericardium be very greatly dilated by the effused fluid, some opinion may be formed, from the unusual extent of this obscurity. Here then abdominal pressure claims a decided superiority; and, upon the *epigastrium*, it will be most effectually exercised. In that situation, the pericardium adheres to the tendinous centre of the diaphragm; and is consequently very near the parietes of the abdomen. Pressure also is more readily practised here than on the hypochondriac regions, on account of the hollow presented by the base of the thorax. Executed upon the principles already indicated, it augments in pericardiac dropsy, as in some other affections of the breast, the dyspnœa and sense of suffocation; and more especially denotes the disease by inducing sudden agitation of the heart and remote arteries, and sometimes syncope. These phenomena subside or re-appear as the pressure is discontinued or renewed.

In all these researches, an accurate acquaintance with the circumstances which have preceded the actual state of the patient is necessary. A woman had an affection of the spleen, consequent upon a quartan intermittent fever. The abdomen swelled; and dubious symptoms of pericardiac effusion were soon manifested. Bichat practised abdominal pressure; and assured himself of the existence of that malady. The death of the patient enabled him to confirm, beyond all doubt, this opinion.

It seems that Bichat frequently preferred abdominal pressure to percussion of the chest, as an instrument of diagnosis in diseases of the heart. Yet it must be allowed, that neither of these processes can be so usefully applied to such diseases as to the elucidation of certain other cases in which we have considered their employment and relative advantages. As auxiliaries to the precise means of discrimination in cardiac maladies which we, of late years, have acquired, they are, however, entitled to our notice.

In dilatation of the heart, we obtain by percussion an extremely obscure sound of the chest, corresponding in extent to the degree of dilatation. The certainty of this result, in most cases, cannot be denied. Yet Bichat had remarked that, in some patients, exhibiting all the characters of *considerable* dilatation, the obscurity of sound was limited to a very *narrow* space; and this unusual result, he suspected, might be caused by the application of a portion of the lung upon the anterior surface of the pericardium. Hence, he was led to combine abdominal pressure with percussion of the chest; or entirely substitute the former for the latter. Pressure, however, can in this way be employed with advantage only when the dilated heart has acquired a certain volume.

But if it be exercised under circumstances favourable to its application, and in the manner as directed in cases of pericardiac dropsy, the patient experiences a distress resembling that which results from the horizontal posture. The suffocation, and lividity of the lips and countenance, increase in proportion to the degree of pressure; the contractions of the heart become stronger: Indeed, such is the state of uneasiness and restraint suffered by patients, as well with diseased heart as with thoracic effusion upon whom this pressure is practised, that they all dreaded the visit of Bichat, apprehensive that he might torture them by a repetition of the experiment.

In closing our translation of this Memoir, we cannot but express a hope, that the British reader may glean from it some

practical hints of value. Yet, favourable as we, on the whole, are induced to think of the processes therein recommended for elucidating the diagnosis of certain thoracic maladies, truth claims the acknowledgment, that we have not been able to derive from them all those decisive results of which they seem to have been productive in the hands of the more fortunate continental physicians.

VI.

A Series of Elementary Lectures on the Veterinary Art; wherein the Anatomy, Physiology, and Pathology of the Horse are essayed on the General Principles of Medical Science. By Veterinary Surgeon Percivall, of the Royal Regiment of Artillery. Octavo, pp. 377. London, 1823.

To the practitioner in medicine, whether physician, surgeon, or surgeon-apothecary, the horse is an object of peculiar attention. This noblest of all animals is the medical man's attendant and devoted servant in all his rounds—transporting him from place to place, through sun and rain, by day and by night, with unexampled alacrity, patience, and expedition. That science, therefore, which has for its objects the preservation in health, and restoration from disease, of an animal nearest to man himself in the scale of animated nature, is particularly calculated to attract the serious regard of the faculty, and is far more closely allied to their own direct studies than many others which occupy much of their time and attention. The veterinary art is now patronised by Royalty itself, and immense savings in the wear and tear of the horse have been effected since the said art has got into the hands of men of science. In the system of shoeing alone, great advantages have been obtained. Many very formidable diseases of the foot are now warded off, by which horses are enabled to go with ease to themselves and safety to the rider. Formerly it was otherwise. When the board of ordnance first placed their horses under the superintendance of veterinary surgeons, numbers of these animals, highly valuable in other respects, "were cast for death purely because their feet were incurably diseased." Thrush, and its sequel canker, corns, grease, and all those varieties of disorganization induced by maltreated inflammation of the parts

within the hoof, consigned multitudes of them to the knacker's knife.

"Whereas, since the eye of science has controlled the hand of the smith, we will venture to assert, *that not a single horse has been lost to the service from either of the abovenamed diseases; and that at the present day the three first*—viz. *thrush, canker, and corns, are almost unknown; and the last of so rare occurrence, that there are not admitted into the Infirmary a dozen cases in the course of the year.*"—*Pref.* xii.

To the enlightened practitioners in medicine, veterinary researches may, from time to time, contribute information, on account of the extensive opportunities which veterinary surgeons enjoy in comparative anatomy and pathology.

"And where is the surgeon who would not himself direct the treatment of his sick or lame horse, in preference to calling in the village blacksmith?—a man whose knowledge is necessarily confined to that of nailing the shoe to the foot? He would not permit a shoe-maker to visit one of his own patients, why should he allow the blacksmith to prescribe for his horse? The *theory* of medicine in the human subject, is the theory of medicine in the brute; it is the application of that theory—the *practice* alone that is different; whether we prescribe for a man, or a horse, a dog, or a cat, the laws of the animal economy are the same in all, and one, and that an unerring system of principles, built upon ascertained and established truths, is to dictate our practice in all." xiv.

It will not be expected that we should go into the elementary matter, of which the work is almost entirely composed; but only glance at such points of theory or practice as may appear most interesting to those not professedly studying the subject.

I. *Blood.* In the first lecture, which is on the blood, we observe the following experiment on an ass about six months old, for the purpose of ascertaining the probable quantity of blood which an animal will lose before it dies.

"The weight of the animal being ascertained to be 79lbs. a puncture was made with a lancet into the jugular vein, from which the blood, which flowed in a very free stream, was collected. The vein having ceased to bleed, the carotid artery of the same side was divided, but no blood came from it: in a few seconds afterwards the animal was dead. The weight of the carcase was now found to be 73½lbs. consequently it had sustained a loss of 5½lbs. precisely the measure of the blood drawn. It appears from this experiment, that an animal will lose about 1-15th part of its weight of blood before it dies; though a less quantity may so far debilitate the vital powers, as to be, though less suddenly, equally fatal. In the human subject, the quantity of blood has been computed at about 1-8th part of the

weight of the body; and as such an opinion has been broached from the results of experiments on quadrupeds, we may fairly take that to be about the proportion of it in the horse: so that, if we estimate the weight of a common sized horse at about 12cwt. the whole quantity of blood will amount to 84 qrts. or 168lbs. of which about 45 qrts. or 90lbs. will commonly flow from the jugular vein prior to death; though the loss of a much less quantity will deprive the animal of life.* 8.

It has been asserted that the horse's blood does not cup or buff—but this Mr. Percivall avers to be an error, as the phenomena are by no means unusual, even when the horse is in perfect health. Of this he mentions a remarkable instance, which was noticed while making some experiments.

"A horse, to every appearance in perfect health, was bled to one pound; after which he was galloped (for the space of about twenty minutes) until he sweated profusely; while under extreme agitation, from the exertions he had been put to, another pint of blood was drawn, by unpinning the same orifice. The coagulum of the first parcel of blood was sizy, tough, contracted, and deeply cupped: that of the last exhibited no signs whatever of buff, was extremely loose and flabby in its texture, so that on being handled it readily mingled with the serum; and in a much shorter time than the first, went into the putrefactive state.

"This latter fact is intimately connected with what we have already advanced, regarding the non-coagulation of the blood after an animal has been coursed to death; since, had exertion been continued until the horse sunk under it, the blood would probably have remained wholly fluid; whereas, in this case, the animal being only in progress towards that state—being only urged to a point from which he could recover, the coagulating powers of the blood were merely diminished." 28.

2. *Pulse.* The pulse of a horse is about 45, and that of a dog 90 in the minute. The most frequent pulse which our author ever observed in a horse was 120. When the number of pulsations sink much below the ratio abovementioned, it is generally an indication of disease in the brain, "and is very commonly met with in the lethargic or sleepy stage of staggers." The heart of the horse may generally be felt beating by applying the palm of the hand to his left side, immediately behind

* "Supposing a man to weigh 12st. or 168lbs. the quantity of blood contained in his body may be rated at 21lbs. or 2 galls. 2 qrts. and 1 pint. Again, granting that a dog weighs 40lbs. the amount of his blood will be five pints. These calculations are useful, and worth our retention, inasmuch as they serve to guide us in practice, as to the probable extent to which we may, with safety, carry venesection in different animals. For instance, we may reckon the loss of a pint from a man to be equivalent to that of a gallon from a horse, or to four ounces from a dog, and *vice versâ*; selecting individuals from each class about the respective weights we have here set down."

and a little above his elbow. In respect to the pulse, the best artery for feeling it in the horse is the submaxillary, as it crosses the posterior margin of the lower jaw.

Digitalis, and white and black helebore, diminish the frequency of the horse's pulse. Aloes take the appetite away and causes nausea also, but does not lessen the velocity of the pulse. Barytes given to the horse in large doses causes the pulse to intermit.

3. *Inflammation and its Consequences.* It is curious that no instance has been observed of *mortification*, as a termination of inflammation, in the horse.

"Horses who die of severe injuries, followed by high and extensive inflammation, sink prior to the gangrenous stage, and they appear to do so from excessive nervous irritation. The nearest approach to sphacelus, and one which we can adduce, if we can any, as an example of it, is that condition of the lungs where death has quickly supervened on acute inflammation of them: even here, however, the parts cannot, correctly speaking, be called gangrenous." 69.

In horses, as in men, venesection, is the main remedy for inflammation. Thus, in what is vulgarly called "fever in the feet," or inflammation of the laminæ, we are to lose no time in opening the inferior coffin artery, and taking away three or four quarts of blood, which will generally arrest the disease in limine. So in staggers, we are to open the jugular veins, by which we have the advantage of both local and general bloodletting. Purging is of such extensive utility in veterinary practice that without it they could do nothing.

"Aloes, almost the only medicine on which we can depend as a purgative for horses,* is to be administered in doses apportioned to the size and apparent strength of constitution of our patient, and to the impression we wish to make on the system. To a horse in health, under ordinary stable management, we give about six drachms;† to one with staggers, a disease in which there is much torpor of the bowels, we would give twelve; but the judgment of the practitioner will best determine the dose." 77.

Should the first dose not take effect it is seldom safe to repeat it in less than 24 hours—the period at which its operation commonly commences.

---

* "We shall discuss this question at large, in our lecture *On Purgation, and Purgative Medicine.*

† "R. Aloës Vulgar. Ext. Pulv. ℥vj. vel. ℥i.
Ol. Menth. Piper. gtt. xx.
Syrupi—q. s. ut ft. Bol. statim sumend."

"Sometimes we exhibit aloes in a laxative form: with this view, we give two or three drachms, or from that to half an ounce, once* a day, or every other day, until purging is produced. Now and then, an alterative medicine is compounded of it—the efficacy of which simply depends on a still smaller division of the aloes: we give one, and even half a drachm,† once or twice a day, or every other day, according to the nature of the case." 77.

Veterinary surgeons bleed with good effect in the inflammatory diseases of horses, and also purge—but they are told that they cannot nauseate the animal with good effect. The horse's fauces are so constructed as plainly to demonstrate that it was not designed he should vomit like a man—and only one half of his stomach is susceptible of the operation of medicine.

"But, opposed to these facts, we have two others equally true, in practice;—the one is, that when we excite efforts to vomit, no ill effects whatever result; and the other, that the greatest benefit is derived from nausea, a state we can at any time produce and regulate with equal certitude. The root of white helebore‡ is the medicine we have been in the habit of employing for this purpose for the last ten years, and we feel no scruple in adding, with the best effects;—it lowers and weakens the pulse, relieves the distended vessels of the inflamed part, and promotes that smooth and glossy condition of skin, which is evidence sufficient, in the horse, of our having excited diaphoresis: these are not fabricated reports—they are the result of long experience and close observation, and such as we are not likely to concede to argument grounded upon any analogical or theoretical conclusions. The common dose is a scruple§ of the powdered root, once, twice, or thrice a day, according to the effect we are desirous of producing: during its exhibition we are frequently to examine the pulse with attention, in order that we may detect its influence on it as early as possible, and either omit its subsequent use altogether, or give it in smaller doses, or at longer intervals. The effect of nausea is farther indicated, by the horse's becoming suddenly dull and torpid—by his hanging his head down, or resting it upon the manger—by his refusing to eat, or drink—and by his frothing at the mouth: which last event is characteristic of excessive nausea, and only precedes, should the medicine be carried farther, distressing and unavailing efforts to vomit. Even this effect of it, however, is attended with no danger, and only requires a

* "R. Pulv. Aloës. Vulg. ℥i. vel ℥ij. vel. ℥iij.
Pulv. Glycyrrh. Rad. ℥ss.
Pulv. Zingib. —— ℥i.
Syrupi —————— q. s. ut ft. Bol. omni die, vel om. alt. die sumend."

† "Ut supra."

‡ "Neither ipecacuanha, nor the tartarized antimony possesses virtue as a horse medicine. Very large doses of them may be given,—two ounces of the latter, without producing any apparent effect."

§ "R. Pulv. Rad. Veratri ʒj. vel. ʒij.
Pulv. Flor. Anthemidis ℥ss.
Syrupi q. s. ut ft. Bol. bis terve die sumend."

little time to subside. On the whole, next to aloes, it is the best medicine with which we are acquainted to combat acute inflammatory disease; and the *only* one we are yet in possession of as a diaphoretic." 79.

Diuretic medicines are very generally given to horses, and are very serviceable in inflammatory affections. Common turpentine, resin, and soap, are the remedies chiefly employed, conjoined or simply mixed with any inert substance, to form what is called a urine or diuretic ball. They should be given every day, or every other day. But it must be remembered that the horse is very susceptible of diuretic medicines, and if they be given in too large doses, or too frequently repeated, they induce great debility, and sometimes nephritis. Narcotic medicines have not been used in the diseases of horses. With reference to diet and regimen, in inflammatory affections, it is proper to substitute bran for corn or beans—and to feed them with green meat, in lieu of hay, (in spring or summer,) unless the animal have inflamed bowels, when fermented provender will be best. When exercise is desirable, it should be confined to walking. There is no instance, Mr. P. observes, where a sick horse can be benefited by trotting or galloping—but he has seen many where simple disorder has been converted into alarming and fatal disease.

As a *topical* application in the inflammation of horses, nothing is better than the coldest water, or ice itself, enclosed in bags, and frequently renewed. Some people prefer the solutions of lead, with vinegar or spirits, to form an evaporating lotion. Fomentations are not very often necessary. The warm bath is only used in cases of strangles, where suppuration is to be promoted. Blisters, rowels, setons, rubefacients, sinapisms, and the actual cautery, are never, of course, to be employed, when there is actual inflammation, but only to remove the effects or sequelæ of the disease.

"The actual cautery, (firing,) considered as the veterinary's last resource, is one of his most potent, and when properly handled, one of his most effectual means to renew inflammatory action, and excite absorption: it does the former by its immediate stimulating effects; the latter, it commences by stimulation, but promotes considerably afterwards by pressure, having the same effect as a tight bandage applied to the part." 84.

4. *Aneurism.* It is curious that, considering the violent exertions to which the horse is so frequently excited, there should yet be so few instances of aneurismal affections. Only one

specimen is preserved in the Veterinary College, of aneurism of the thoracic aorta, about the size of a pumpkin.

5. *Veins.* There is but one disease of veins met with in the horse, and that the result of external injury. Ignorant farriers, however, describe "*blood-spavin*" as a varix of the horse's vein; but this, Mr. P. observes, is quite imaginary.

"If ever you examine a horse said to have blood-spavin, (for it is by no means a very common occurrence,) you will perceive a soft fluctuating tumor upon the inner and fore part of the hock, in the course of the principal vein, which is at that part superficially placed. At first view of it you are convinced from the unnatural prominence of the part, that there must be disease; and so there undoubtedly is; though it is not of that kind which its name so *emphatically* expresses. Dissection has fully developed its nature. There is placed here a little membraneous bag, called a *bursa mucosa*; which contains in a natural state, a certain quantity of mucous fluid; from a too copious secretion of which, it happens, now and then, that this sac becomes distended, preternaturally enlarged, and in this condition constitutes a disease, called *bog-spavin*; the nature of which will be hereafter more fully explained. The vein, passing immediately over this bag, compressed, and diminished in calibre by enlargement of it, cannot transmit blood, at this part, with the usual facility or quickness; the consequence is, that a preturnatural distention of it happens immediately below the tumid bursa, thence extending as low down as the first valve: and this has been mistaken for a varix, or some such thing, and denominated a *blood-spavin*." 96.

Wounded veins, then, (from bleeding,) are the only diseases to be mentioned. If, from bad lancets, inattention in lying the vein, subsequent friction, or mal-habit of the animal, any separation of the sides of the wound takes place, tumefaction of the neck ensues. The horse should be tied up for an hour after bleeding, so that he cannot rub his neck; for some horses have bled to death by accidents of this kind. If inflammation of the vein take place, it is sometimes troublesome, and even dangerous, producing great constitutional irritation, denoted by quickened respiration, frequent and strong pulse, refusal of food, sparing evacuations of fæces and urine, and general heat of the body, especially of the mouth. In one case under Mr. P. death took place. It is not a little remarkable, that when the jugular vein of a horse inflames after bleeding, the disease spreads *against* the current of blood—that is, towards the head; whereas, in the human subject, the inflammation proceeds *with* the current of the circulation—towards the heart. Mr. Percivall's explanation not being very satisfactory, we shall pass it over.

"The mode of treatment found to be most successful by veterinary practitioners, is, in some respects, very different from what surgeons are in the habit of adopting. If the tumefaction and induration, in the course of the vein, have extended to the head, a blister is by far the best application, without any regard to fomentations, evaporating lotions, &c. which are only of use in the more incipient stages. At the same time, you should produce a slough, and excite the adhesive action in the vein, by the introduction of some caustic, or of the actual cautery; the latter is by far the preferable remedy. In the use of it we avoid all force—the mere searing of the sides of the wound is all that is required; our objects being to procure a free opening, and a discharge of healthy pus." 106.

Purgatives, in full doses, are proper; and the substitution of bran for corn is a good regimen. The head and neck should be kept as motionless as possible.

5. *Cellular Membrane.* Under this head we have the following useful direction, which should be attended to carefully, as we have seen fatal effects from neglect of the precept.

"Young horses recently brought up to London for sale, or others just taken from grass, or that have been fed on *soft meat* in the stable, and little exercised, are all fat and *fine to the eye*, but not *in condition for work*. The common and simple management that such horses require, to put them into condition for regular work, is to give them nothing but dried provender of the best kind; to exercise them gently at first, and exert them more by degrees; and occasionally administer moderate doses of aloes, by way of emptying the bowels, and exciting the powers of absorption, in order to get rid of some of their superabundant fat. By these means, we disencumber the muscles of their useless cellular and adipose matter, reduce the weight of the carcase, and improve the wind: in fact, we put the animal in a fit condition to go to hard work, or, in common language, *season him*." 139.

6. *Neurotomy.* To Mr. Sewell, the able assistant professor at the Vetorinary College, belongs the honour of first proposing or practising this now celebrated operation. If the withdrawal of pain not to be assuaged by other means—if the restoration of an incurably lame horse to a state of comparative soundness—be considerations of importance:—then neurotomy will take the lead of modern discoveries in veterinary science. Mr. Sewell has not escaped the envy that waits on all discoverers. First, the utility is denied—and, that ground no longer tenable, the originality, of course, is to be impugned.

The nerves being the media through which sensibility is conveyed—pain as well as pleasure—it is natural to expect that men should long ago have thought of interrupting the communication with a painful part by division of the nerve. Accord-

ingly attempts, though fruitless ones, were made at the Veterinary College, by simple division of the nerve, many years ago, and the merit of discovery is accordingly denied to Mr. Sewell.

The division, or excision of the nerve in the pastern of a horse, does not appear to check the growth of the foot, or produce any disease thereof. If, then, the nerves of this organ be of so little apparent use, why is it so plentifully supplied with nerves?

"This operation has certainly taught us one, if not two important uses of nerves to the foot, which did not occur to us before: *viz.* that they (the nerves) are the safeguards of that organ in health, and, if we may be allowed the expression, its nurses in disease; they inform the animal when the foot is impaired, and warn him that it will be still farther injured by being made use of:—pain is the consequence of injury, the limb is favored, and the disease in it arrested simply from repose; so that it now and then subsides without medical aid. But in the insensible foot, the reverse of this is the case: the disease is aggravated by the animal's using the part as he would were it perfectly healthy; (he being totally unconscious of its presence;) and a destruction of the organization of the foot, if not the loss of life itself, may happen in consequence of a comparatively trifling accident." 173.

These considerations show the necessity of great care and frequent inspection of the foot, whose nerves are cut. To the question—"do such horses go with that natural ease and freedom that others possess;" Mr. Percivall answers that he thinks and believes that the animal loses a something—probably a kind of feeling which affects his tread sufficient to inform his rider that his feet are not what they originally were.

The place for operating has now become a subject of dispute—some preferring the fetlock—some choosing to operate just above that part—while oth s cut the nerve on one side above or below the joint. "Mr. Sewell, and all who follow his directions, choose now the sides of the large pastern bone —*below the fetlock*, for the operation."

"Mr Sewell's object in excising the large pastern nerve, is to preserve sensation around the front of the foot—a part, in general, free from disease; and this is now fulfilled, since the nerve that goes thither, is a branch from the metacarpal

"The operation is by no means difficult to him acquainted with the anatomy of the part. The horse being cast, and properly secured, and the affected limb extended and placed in a convenient position for the operator, an incision, about 1½ inch long, is to be made upon the side of the large pastern bone, opposite to, and in the direction of, the large pastern nerve; then, having cut through the cellular substance, so as to lay bare the trunk of this nerve, (anteriorly to which, and in contact with it, lies the artery, which must be ca efully avoided,) raise it with a tenaculum, and divide it by the introduction of a probe-

pointed bistoury, as high up as the external wound will admit: lastly, clean it from surrounding adhesions, and detach it from the continuation of the trunk below, so as to excise a portion about 3-fourths of an inch in length. The operation requires to be performed on each side, there being two separate trunks below the fetlock; and, of course, on both legs, should both be affected. To close the wound, we rather employ adhesive plaster than suture, with straps of which the pastern may be encircled, if the hair be closely shorn off: where suture is preferred, the interrupted is the best, and about three or four stitches are sufficient. The legs should be bandaged* after the operation, and the horse not allowed to lie down during the first night, or be moved for the three or four following days, lest the parts be disturbed, and union by adhesion defeated." 176.

Mr. Sewell has operated on upwards of 500 horses, and in eight cases out of ten, with full and complete success. For want of proper management subsequently to the operation, some few have turned out unfortunately. It would appear, from the reports transmitted to Mr. Sewell, from various quarters, that two years or thereabouts may be calculated as the term which a horse will run in hard labour, after this operation, when successful. It is curious that two instances have occurred to Mr. Sewell, one in a horse and another in a mare, where the copulative functions returned after neurotomy, though they had ceased previously from, it is supposed, the pain of the foot. Our readers are aware that Mr. Swan, of Lincoln, performed this operation on the human subject. The great difficulty lies in selecting proper objects for the operation. The following are our author's rules for our guidance on this point.

"1*st*. Any kind of *chronic* lameness about the foot, or coronet, with the exception of that arising from pumice-feet, may require the operation.

"2*nd*. Should inflammation be present in the foot, pasterns, or fetlock, it is always to be reduced prior to the operation.

"3*rd*. If we suspect ulceration of the joints—of the ligaments, tendons, or articular cartilages, we should not operate; since neurotomy will aggravate the disease, by enabling the animal to make use of parts, unfit, in their present condition, to bear either pressure or motion.

"4*th*. Neurotomy succeeds best in those cases in which lameness is accompanied by an alteration in the form and texture of the hoof, (pumice-foot excepted,) and where all previous disease has terminated in this: indeed, to some horses lame from anchylosis, partial or complete, it seems often to convey permanent benefit, by inducing

* "We commonly dip the bandages, previously to applying them, in the saturn wash. It is also a good practice, to give a dose of physic, and keep the horse, during his confinement, on bran, instead of corn. We may observe, that, in many cases, the bandages only are sufficient."

them to exert these parts more, and thereby obtaining, in process of time, some small degree of useful motion in joints before stiff and immoveable." 184.

Mr. Sewell finds that, in cases of entire section of the nerve, sensation returns in about two months. Where excision of a portion of nerve takes place, the period of returning sensation is very uncertain. In one of Mr. Sewell's own horses no feeling had returned at the end of three years. It is undecided whether lameness is likely to return with sensation.

Tetanus is not a very rare disease of horses, and is nearly as fatal in those animals as in the human subject. Venesection produces more relief than any other measure, but this and every other remedial agent too often fail.

7. *Tendons.* The tendons of the flexor muscles of the fore legs are most frequently the seat of injury or disease in the horse.

"What is called a sprain, or strain of the flexor tendons of the leg, does not, in the generality of cases, consist in any preternatural extension of those parts, but in a laceration of that cellular membrane which connects them together, and of which the thecæ for them is composed, in their passage between the knee and fetlock-joint. We do not mean to contend, that in the worst accidents of this kind the tendons may not be stretched, and even partially ruptured; but we would reject the accounts of writers altogether, in reference to their being *torn asunder*, as wholly unsupported by the actual inspection of these parts, and thus far disbelieve that a horse was ever *broken down*." 203.

On the treatment of this very common accident we shall give Mr. Percivall's directions in his own words.

"The treatment of a slight sprain is very simple. If the leg be but little swollen, and the lameness inconsiderable, the use of some refrigerent, or evaporating lotion,* with a well applied bandage, will be all that is required; or—a practice some prefer, immerse the leg in spring water, and let the horse stand up to the knee in it for several hours in the day, using the bandage and cold wash only during the night. When there is much heat, swelling, and tension of the leg, however, our treatment of the case must be more active. In the first place, we are to draw blood to the amount of from four to six pounds; and this we can always do, with as much effect as locally, by removing the horn at the toe and puncturing the anterior coffin artery, or opening the cephalic, or saphena vein, according as it is the fore or hind leg affected. We should also, at this time, exhibit a full dose of

* "Either the Liquor. Plum. Subacet. Dilut. or that in combination with Vinegar, or Spirits of Wine.—Vide Lecture V. *Local Treatment of Inflammation.*

purgative medicine.* Emollient applications are here to be preferred to cold; fomenting the leg with warm water, or, what is more effectual, steeping it in the same manner as that in which we have recommended the use of the cold, will tend much to the reduction of the inflammation, and considerably alleviate the animal's sufferings. When the heat and tenderness have much abated, we prefer immersion in cold to warm water, or have recourse to the evaporating lotion and bandage; taking care, however, not to apply the bandage tightly, until the animal can bear moderate compression of the leg with the fingers. Rest is indispensable: it is an erroneous practice to turn horses loose into stables at the onset of this disease; though it is of great service to them when the inflammatory action has subsided; which you may determine on by the feel, and by the animal's *walking* sound." 205.

The swellings and stiffnesses that frequently remain after the inflammation has disappeared must be treated on the same principles that guide the medical practitioner when man is the subject.

8. *Muscles.* Under this head we shall only glance at *Stringhalt*, a convulsive movement of the hinder extremities of the horse, corresponding, in some slight degree, with chorea in the human subject. "Not unfrequently when the animal has lifted his hind leg from the ground, which is always done with a convulsive twitch, the fetlock nearly approaches the belly, and by some other remarkable irregularities in its action, before the foot can be replaced upon the ground, displays such unnatural movements as to convince us that volition has little power over it during its suspension." It is said that in many parts of the Continent this equestrian chorea is esteemed extremely graceful—particularly if it affects both legs! It is considered by our author as the consequence of some affection of the spinal marrow or nerves proceeding thence.

9 *Bones.* No animal is more subject to exostosis than the horse, and it is a very common cause of permanent lameness. The pathology of our author, here, as on all other occasions, is taken from medical writers, and therefore we do not touch upon it. The best remedy is constant blistering—and then the actual cautery. At the veterinary college it is the practice to divide the periosteum in splints.

"We would define a spavin, (called by horse-dealers and grooms a *jack*,) to be an exostosis upon, or near to, the inner and lower part

* "R. Aloes Vulgar. Ext. 3vij.
Ol. Carui gtt. xl.
Syrupi q. s. ft. Bol. for a horse of ordinary size."

of the hock. In its origin and progress it is very similar to a splint; indeed, it may be, in reality, purely a splint; although from its situation, we should denominate it a spavin. To explain this, a spavin may, and commonly we believe does, arise from an inflammation of the cartilago-ligamentous substance connecting the head of the inner small metatarsal to that of the cannon bone, without any accompanying disease of the bones of the hock: and this, terminating in ossification, may be a splint as to its nature, but is a spavin as to its situation." 352.

We must here close our short notice of the work before us. On perusing it attentively we cannot recommend the purchase of it by our professional brethren—and for this reason only, that nineteen-twentieths of it are taken from the best medical and surgical writings, which writings are familiarly known. In short, we have given almost the whole of what really appertains to the *veterinary* art. At the same time we can have no doubt but that the book is very well adapted to the veterinary student—and that it is the most scientific, as far as it yet goes, of any work emanating from a similar source.

VII.

Medical Jurisprudence. By Dr. Paris and Mr. Fonblanque.

[Second Analytical Article, continued from page 426.]

Our readers will remember that we closed our first analytical article with the subject of Nuisances. The next topic discussed by our authors is headed "Impositions," embracing feigned or simulated diseases, and adulterations of food.

1. *Simulated Diseases.* Various are the motives which have induced man to assume the guise of suffering—as if there was not enough of real affliction on his species. Among these sinister motives are, military exemptions and discharges—civil disqualifications—the hope of parochial relief—shelter of an asylum, or compassion and alms. There are also many instances on record where no other earthly motive could be discovered than the whim or caprice of the individual.

Although an intelligent practitioner will not find much difficulty in detecting these counterfeit diseases, in general, yet he ought to be on his guard not to push his incredulity too far, but

to lean to the side of mercy, where there is any doubt on the subject. We have known a man who complained of inability to move the shoulder-joint without much pain, and yet nothing could be seen externally for a month or six weeks, during which time the man was excused from duty. At length the surgeon got tired, and suspected that the man was *sculking*. He was ordered to duty, but came back declaring he could not move his arm. He was reported to the commanding officer as counterfeiting inability, and was actually flogged, though very moderately. It turned out, however, that a deep-seated abscess had been forming in the shoulder-joint, which ultimately terminated in complete anchylosis—and, we need not add to the utter disgrace of the surgeon, whose inhumanity as well as ignorance was a theme among his brother officers for years afterwards.

"Whenever the suspicions of a medical person are excited with respect to the sincerity of a patient's account, he should always endeavour to conceal them; he should become himself a dissembler, *superare malitiam malitia*," for while the impostor is persuaded that the medical attendant is his dupe, he will be less on his guard; he should then be desired to describe with minuteness every symptom and circumstance of his malady; he should be questioned as to its origin, progress, and duration, its seat, and intensity, and the effects produced upon it by remedies; few impostors will be able to withstand such interrogatories without tripping; they will soon betray some incongruity in their statements, and enable the pathologist to elicit the truth. A girl of seventeen counterfeited epilepsy so well in the general hospital of Montpelier, as to elude all suspicion, until *M. de Sauvages*, who, being less credulous, asked her whether she had not felt an air pass from the hand to the shoulder, and from the shoulder to the thigh, when, upon her replying in the affirmative, he ordered her to be whipped, after which she had never any return of the disease." 357.

If a patient complains of long protracted disease which has rendered his life uncomfortable, and yet without any attendant emaciation, we are naturally led to suspect the truth of his statement. We ought, in these cases, to find out whether the patient has, in fact, flown for relief *voluntarily*, to any remedy; "for if he be an impostor, however cheerfully he may have appeared to submit to medical discipline, we shall find, upon minute examination, that he has uniformly neglected every plan proposed for his case." Galen was, from a circumstance of this kind, led to the detection of a person who feigned a fit of cholic, in order to avoid attending a public assembly, but who neglected the remedy (philonium) which had uniformly relieved him,

when labouring under actual attacks of the disease, to which he was, in reality, subject.

"When the more ordinary modes of investigation have failed in leading to the detection of an imposture, of whose existence we entertain but little doubt, we may proceed to a system of intimidation, and to severe discipline; few impostors, however sturdy, can withstand the cravings of hunger, blistering, the affusions of cold water, and above all a continual nausea from the administration of divided doses of *Tartarized Antimony*; and yet exceptions of an extraordinary kind might be adduced; 'I have seen an instance,' says *Dr. Hennen*, 'where the patient admitted of all the preparatory measures of amputation before he thought proper to relax his knee joint;' the same author also relates the case of a dragoon who bore very severe riding school duty for some weeks, secured to his horse, before he could be brought to acknowledge that his chronic rheumatism was assumed. *Mahon* records a very extraordinary instance of a conscript, who feigned blindness and baffled every attempt to detect the imposition; he was even placed on the margin of a river, and desired to go forward, which he did, and fell into the stream; he was however, without doubt, aware that boats were provided for his safety, for after having received his discharge, he freely acknowledged the imposition which he had practised." 358.

The diseases that have been feigned are very numerous, and the detection of each case will require an exertion of ingenuity, for which no previous instruction can ever provide.

Insanity is one of those diseases which have been often feigned, from the earliest antiquity—instance David, Ulysses, and Lucius Brutus. "The feigned lunatic never willingly looks his examiner in the face; and if his eye can be fixed, the changes in his countenance, on being accused, will be strongly indicative of his real state of mind." It is moreover difficult to imitate the habits of a lunatic for any length of time—and especially to forego sleep. An insane person generally sleeps little and talks much during the night, but the pretender, if he thinks he is not watched, will sleep, and act his part only when he supposes he is overlooked.

Somnolency has been often assumed, and Dr. Hennen has related a remarkable case in his work on military surgery.

"A person of the name of *Drake*, in the Royal African Corps, assumed an appearance of total insensibility, under which he resisted every kind of treatment: he resisted the shower bath as well as shocks of electricity; but on a proposal being uttered in his presence to apply to actual cautery, his pulse rose; and on preparations being made to remove him to Bethlem hospital, an amendment soon manifested itself." 360.

We saw this impostor the day he was landed at Portsmouth, and detected the imposture in one minute, and that by a very simple experiment. He was lying on a bench with mouth and eyes closed as if in a profound sleep. We desired a person present to give us a piece of aloes to put into the patient's mouth, first laying a hand on one of his temples. The moment we attempted, with the other hand, to push down the lower jaw, we felt the crotaphyte muscle thrown into action to resist the operation. This convinced us at once of the voluntarity of the act, and we predicted that he would turn out an impostor, which he did. By the way, he kept up the farce till he effected his discharge from His Majesty's service.

A curious case is also related by Dr. Hennen, where violent palpatation of the heart could be produced voluntarily. Dr. H. found that he could, at any time, render the affection very imperfect by throwing the patient's head well back, so as to destroy that voluntary combination of muscular action, on which he believed the palpitation to depend.

Epilepsy offers great facilities for the impostor, as it does not require the unremitting caution which other maladies exact for successful imitation. During the feigned attack the blood is generally sucked from the gums, and the mouth made to froth by chewing soap.*

"There is, however, one symptom of the disease which cannot be imitated—the incontractility of the pupil of the eye, on exposure to light, which in a real fit of epilepsy is always dilated and immoveable; nor is the patient affected by rubbing stimulants on the nose." 361.

We know from actual observation that the abovementioned state of the pupil is by no means invariably present in real epilepsy, because we have seen it otherwise in private patients, where no possible reason could exist for feigning the malady, and where they were extremely anxious to get cured.

In respect to hysteria, it is almost impossible to detect a well counterfeited paroxysm. Cullen was deceived by a man who simultaed this disease as long as suited his convenience in the Royal Infirmary of Edinburgh, and afterwards had a hearty laugh at the doctor for his credulity.

It may be remarked, that these spasmodic affections sometimes assume an extravagance of character and action that might render them suspicious, were they not authenticated be-

* See evidences before a committee of the House of Commons on the subject of mendicity.

yond all doubt. The jumpers in Cornwall are an instance in point; and show the powerful influence of sympathy in propagating a spasmodic paroxysm. It is pretty well known that epileptic seizures have sometimes been communicated to certain bye-standers of susceptible dispositions.

"Dum spectant oculi læsos, læduntur et ipsi."

It is properly observed by our authors that, in such cases, although we must consider those in whom the affection originated as designing impostors, we are bound to acquit the general mass of sufferers of any blame, except that which may attach to excessive credulity. We pass over several pages of simulated diseases as not containing any thing worthy of notice, concluding in the words of our authors.

"We shall now dismiss the subject of simulated diseases, leaving such deceptions as that of *Miss M'Avoy* of Liverpool, to the fate which must await them; and the professional men who have aided them by their credulity, to the contempt which they so richly merit, from the more enlightened part of their medical brethren." 373.

2. *Adulteration of Food.* Mr. Accum's "Death in the Pot," though greatly exaggerated, no doubt, is acknowledged to contain many truths. It cannot, indeed, be denied, that a great part of our daily food, and a still greater portion of our luxuries are the constant objects of fraudulent adulteration. Nor can we hope for amendment while the temptations remain so excessive, the detection so difficult, and the punishment so inadequate to the crime—above all, while the trouble and expense of prosecution continue to be so disproportioned to the injury sustained by any individual.

The adulteration of bread by alum has excited much alarm among the community; but, for our own parts, we cannot believe that the quantity (ten or fifteen grains in the quartern loaf) can have any prejudicial influence on the most delicate constitution. The adulteration by gypsum, pipe-clay, and chalk, is a much more serious evil. It is admitted that there is no unexceptionable test for the detection of alum in bread, since there are impurities in the salt used by the bakers sufficient to throw down precipitates like those we might attribute to alum.

In respect to beer and porter, they have the name of being strongly adulterated—perhaps not so much in the cauldrons of the brewers as in the barrels of the publican.

"The following are the more usual additions made by the publican; *beer-heading*, which is intended to impart the "*cauliflower head*," and consists of sulphate of iron, common salt, and alum, for which several convictions have taken place, (*Minutes of the Commissioners above cited;*) it is necessary to observe that the addition of this "*heading*" is made with a view to restore the property of frothing to the porter, which has been destroyed by dilution with table beer. The extract of the berries of the *Cocculus Indicus*, possessing properties eminently narcotic, is added for a purpose too obvious to require explanation, and is regularly sold by the brewer's druggists under the technical appellation of "BLACK EXTRACT." There is also another preparation, for a similar object, sold under the name of "BITTERN," and which is a compound of *black extract, extract of quassia, Spanish liquorice*, and calcined *sulphate of iron*. "MULTUM," used as a substitute for malt and hops, consists of *Extract of Quassia*, and *Liquorice*. We must close this note by expressing our regret at the little assistance to be derived from chemistry in the detection of such frauds; mineral substances, as *sulphate of iron*, or any of the mineral *acids*, can certainly be recognised in our laboratories; but when we attempt to identify vegetable principles, the resources of analysis completely fail." 378.

Milk is rarely adulterated with any other ingredient than the crystal spring—if that can be called adulteration. The subject is no farther pursued by our author.

2. *Policies of Insurance on Lives.* Death, by suicide, or the hands of justice, is generally excepted in all policies. And if there be any fraudulent concealment as to the state of the party's health or age, the policy is void.

"But even where there is an express warranty that the person is in good health, it is sufficient that he is in a reasonable good state of health; for it never can mean that the *cetui que vie* is perfectly free from the seeds of disorder. Nay, even if the person, whose life was insured, laboured under a particular infirmity, if it can be proved by medical men, that it did not at all, in their judgment contribute to his death, the warranty of health has been fully complied with, and the insurer is liable." 383.

Survivorship winds up the second part of the work before us, and from this we can extract nothing but *law*, of which we profess ourselves to be entirely ignorant.

We are now arrived at the most important division of the work, comprehending the principal pleas of the crown, three of which, rape, arson, and murder, are pre-eminently the subjects of medical jurisprudence.

1. *Arson.* This crime, at common law, is the malicious and voluntary burning of the house of another, by night or

day. The charge may occasionally become the subject of scientific research, and the accused individual receive an honorable acquittal at the hands of the chemical philosopher, by whose interposition the conflagration, unjustly imputed to malice, may be proved to have originated from a spontaneous process of decomposition.

Spontaneous combustion (an inflammation occasioned by the reaction of different bodies upon each other, at the ordinary heat of the atmosphere, without the contact or approach of any other body previously raised to a high temperature) has attracted the attention of many eminent chemists, and numerous experiments have been instituted to throw light upon the causes of this curious phenomenon. The following may be considered as the principal sources from which it may originate.

"I. FRICTION.
"II. FERMENTATION OF VEGETABLE AND ANIMAL SUBSTANCES, as that of *hay, oatmeal, roasted bran, coffee, &c. rags in paper-mills, &c.*
"III. CHEMICAL ACTION. *Accension of oils, by various animal, vegetable, and mineral substances; accension of vegetable matter by concentrated acids; ignition of lime by the affusion of water; ignition of pyrites.*" 403.

Friction. Two pieces of wood rubbed hard together will bring forth fire—and all the chemical philosophers of Europe cannot explain this simple phenomenon. "We must therefore rest upon it as an ultimate fact, and be satisfied with availing ourselves of the advantages to which a knowledge of it may conduce."

Fermentation. The presence of water seems indispensable here—hence in all cases of spontaneous combustion from fermentation, the substances have either been imbued with moisture, or have possessed the power of absorbing it from the atmosphere.

"The firing of hay, when stacked in too moist a condition, is a striking exemplification of this fact; the same circumstance occurs from great accumulations of turf, flax, and hemp, heaps of linen rags in paper-mills, &c. provided a sufficient portion of moisture be present to excite the process of fermentation, and the consequent evolution of heat. *Oatmeal*, from the extreme avidity with which it imbibes water, and the heat which is generated by the absorption of it, is necessarily liable to spontaneous combustion; the following well authenticated case may serve as an illustration of this fact: 'A gentleman removed with his family from Glasgow to Largs, in May last, and shut up his

house, which was not re-opened until the end of August; the house stands on the side of a deep declivity, so that the kitchen which is in the back part, though sunk considerably below the level of the street, is entirely above ground, and is well lighted and ventilated. In an opening of the wall, near the kitchen fire-place, originally intended it is supposed for an oven, there was placed a wooden barrel bound with iron hoops, and filled with *oatmeal*. This meal, which had heated during the absence of the family, at last caught fire, and was totally consumed together with the barrel which contained it, nothing remaining but the iron hoops and a few pieces of charcoal." 405.

In some cases torrefaction increases the propensity of vegetable substances to spontaneous combustion, as coffee, roasted French beans, lentils, &c. Some years ago a fire broke out at Nauslitz, said to have been occasioned by the application of roasted bran to the necks of some cattle in a wooden cow-house. M. Rude instituted some experiments, by which he found that if rye bran, roasted until it acquires the colour of coffee, be wrapped up in a linen cloth, it will shortly take fire. Montet relates that animal substances will sometimes take fire, and says, he himself witnessed the spontaneous accension of a dunghill. Woollen stuffs are said to have taken fire spontaneously.

Chemical Action. This is a frequent cause of combustion. Fixed oil, especially when of a drying nature, with its various accomplices from the animal, vegetable, and mineral kingdom, has, in darkness and secresy consigned ships, houses, and manufactories to the flames.

"About twenty-five pieces of cloth, each of which contained nearly thirty ells, were deposited upon wooden planks in a cellar at Lyons, on the eighth of July, 1815, in order to conceal them from the armies which then over-ran France; *in the manufacture of the cloth 25lbs of oil were used for a quintal of wool, and the cloth was quite greasy*, each piece weighing from 80lbs to 90lbs; the cellar had an opening to the north, which was carefully shut up with dung, and the door was concealed by bundles of vine-props, which freely admitted the air; on the morning of the 4th of August an intolerable stench was perceived, and the person who entered the cellar was surrounded by a thick smoke, which he could not support; a short time afterwards he re-entered with precaution, holding a stable lantern in his hand, and he was astonished to perceive a shapeless glutinous mass, apparently in a state of putrefaction; he then removed the dung from the openings, and as soon as a circulation of air was established, the cloth instantly took fire In another corner of the cellar lay a heap of stuffs which had been *ungreased* and prepared for the fuller, *but they had suffered no change*. In this case the agency of the oil was sufficiently evident. In June, 1781, a similar occurrence happened at a wool-comber's in a manufacturing town in Germany, where a heap of wool-combings, piled up in a close warehouse seldom aired, took fire spontaneously.

this wool had been, by little and little, brought into the warehouse, and from want of room, been piled up very high and trodden down; that this combed wool, to which rape oil mixed with butter had been added in the combing, burnt of itself, was sworn to by many witnesses: one of whom affirmed that ten years preceding a similar fire had happened among the flocks of wool at a clothier's, who had put them into a cask, where they were rammed down hard for facility of carriage, and that this wool burnt from within outwards, and became quite a cinder. Cotton goods, in which linseed oil had been spilt, have burnt in a similar manner, and there is reason to attribute to an accident of this kind the recent loss of a merchant-vessel homeward bound from the East Indies."* 407.

Amongst the mineral substances capable of exciting the inflammation of oils, an ore of manganese, called the *black wad of Derbyshire*, is remarkable. When this substance is powdered and mixed with a little linseed oil, it will ignite in the course of an hour, and become red hot, like burning small-coal. It is supposed that the Pantheon in Oxford-street was destroyed by the combustion of a composition of this kind used for painting the scenery. A fire lately took place in Mr. Parke's chemical laboratory in consequence of the leakage from a carboy of nitric acid. It is well known that the sudden slacking of quick-lime has occasioned fires. At Edmonton, last winter, the flood, consequent on a heavy fall of rain, made its way among the quick-lime in a brick-layer's premises, which took fire and were burnt.

"There still remains for notice another source of spontaneous burning,—the ignition of *Pyrites*, and that of cinders from the furnaces of glass-works, from exposure to air and moisture; it was in this manner that the ship *Ajax* was supposed to have been consumed, from the spontaneous combustion of coal, abounding in *Pyrites*.

Human Combustion. Our authors remark that the combustion of human beings has been *erroneously* designated as *spon-*

* We have no doubt that many of those vessels which are annually consumed by fire in the harbours of Bombay, the Ganges, and other oriental ports, are lost in this way.

We well remember an accident of this kind, that nearly proved fatal to ourselves about eighteen years ago. The writer of this note was a passenger in the Russel of 74 guns, on a voyage from Malacca to Madras, in the year 1805. In the middle of a dark and stormy night, a fire broke out in the purser's store-room, (occasioned by some oil getting loose among cotton yarn kept for lamp-wicks) close to the powder magazine. Fortunately the officer of the watch, without sounding any alarm, took about a dozen of steady men with him, each carrying a bucket of water, and quenched the flame before it communicated with the magazine. A fellow-passenger who happened to be on deck when this fearful intelligence was reported, ran down to the ward room where the writer was lying in a cot, but finding him fast asleep he had the humanity not to awake him, expecting that the ship would blow up in a few minutes!

taneous, "for in every recorded instance the approach of some burning body, as that of the flame of a candle, or an ignited pipe, appears to have been necessary for its occurrence."

"It can no longer be doubted,' says *Dr. Gordon Smith*, 'that persons have retired to their chambers in the usual manner, and in place of the individual, a few cinders, and perhaps part of his bones, were found.' Upon this occasion we confess ourselves more sceptical; the phenomenon is contrary to all our preconceived views, and must therefore require more than ordinary testimony for its support, although we are ready to admit, that upon any other less miraculous subject, evidence even less powerful than that produced on the present occasion would be deemed amply sufficient." 412.

Now we would reason thus:—We have no more *à priori* or *preconceived* cause for believing or doubting the spontaneous combustion of the materials composing the human frame, than of any other substance, simple or compound, in the material world around us. The whole must be determined by the evidence of facts, and not by "preconceived views." Plouquet enumerates 28 cases. Dr. Trotter adduces a considerable number of instances of persons addicted to drunkenness having undergone spontaneous combustion; and the journals of various nations present us with a great variety of examples—"all of which, say our authors, with some slight shades of difference, appear to have been attended with the same phenomena:—a fact which we freely admit affords internal evidence of their authenticity." On the other hand, they observe, that amidst all these cases *only one* is related where the person survived, for a short time, and gave an account of the manner in which "he was *struck* with the fire."

"This was the case of the priest *Bertholi*, described in one of the Journals of Florence for October 1776, by *M. Battaglia*, the surgeon, who attended him; we extract a short account of this extraordinary event from *Foderé* (tom. 8, p. 210) who to his own observations on the subject adds those of *Fouquet*, *Marc*, *Koopt*, and others. *Don Gio Maria Bertholi*, having spent the day in travelling about the country, arrived in the evening at the house of his brother in-law; he immediately requested to be shown to his destined apartment, where he had a handkerchief placed between his shirt and shoulders, and being left alone, betook himself to his devotions. A few minutes had scarcely elapsed when an extraordinary noise was heard from the apartment, and the cries of the unfortunate priest were particularly distinguished; the people of the house hastily entering the room, found him extended on the floor, and surrounded by a light flame which receded (*à mésure*) as they approached, and finally vanished. On the following morning, the patient was examined by *M. Battaglia*, who found the integuments of the right arm almost entirely detached and pendant from the flesh;

from the shoulders to the thighs the integuments were equally injured; and on the right hand, the part most injured, mortification had already commenced, which notwithstanding immediate scarification rapidly extended itself. The patient complained of burning thirst, and was horribly convulsed, he passed by stool putrid and bilious matter, and was exhausted by continual vomiting accompanied by fever and delirium On the fourth day, after two hours of comatose insensibility, he expired; during the whole period of his suffering, it was impossibe to trace any symptomatic affection. A short time previous to his decease, *M. Battaglia* observed, with astonishment, that putrefaction had made so much progress that the body already exhaled an insufferable odour worms crawled from it on the bed, and the nails had become detached from the left hand.

"The account given by the unhappy patient was, that he felt a stroke like the blow of a cudgel on the right hand, and at the same time he saw a lambent flame (*bluette de feu*) attach itself to his shirt, which was immediately reduced to ashes, his wristbands (*poignets*) at the same time being utterly untouched. The handkerchief, which, as beforementioned, was placed between his shoulders and his shirt, was entire, and free from any trace of burning; his breeches were equally uninjured; but though not a hair of his head was burnt, his coif (*calotte*) was totally consumed. The weather on the night of the accident was calm, the air very pure; no empyreumatic or bituminous odour was perceived in the room, which was also free from smoke; there was no vestige of fire, except that the lamp, which had been full of oil, was found dry, and the wick reduced to cinder." 415.

The following are the circumstances in which all the recorded cases so singularly concur.

"1. The persons who have suffered this species of combustion have been long accustomed to drink spirituous liquors.

"2. These persons have been generally females, and advanced in years.

"3. The body has not burned *spontaneously*, but accidentally, in as much as it required for its inflammation the contact or approach of some burning body, or that of electric matter.

"4. The extremities of the body, such as the feet and hands, have in general escaped.

"5. The fire has little injured, and sometimes not at all, those combustible things that were in contact with the body when it was burning

"6. The combustion of these bodies has left a residue of greasy and fœtid ashes and fat, that were unctuous, and extremely offensive and penetrating." 415.

It is needless to advert to the various theories which have been proposed for the explanation of this singular phenomenon. Our authors justly observe that, if the bodies in question were actually found consumed in the manner described, it is quite impossible that they were burnt by ordinary means; for even admitting that they had been rubbed over with highly combus-

tible substances, the explanation would not be less difficult, since it is well known that when criminals were condemned to death by fire, a very large quantity of combustible materials was required for burning their bodies.

2. *Rape.* This, which is the violent deflowering of a female against her will, is felony by the common and statute law. It is also lawful for the female to take the life of the ravisher, or for the husband or parent of the female, to put the culprit to instant death. Formerly it was necessary that the injured female should make immediate complaint; but now no time is fixed. A jury, however, will seldom listen to a stale complaint. In a medical point of view it would be highly desirable that immediate inspection should be made, as many collateral proofs would be effaced in a few hours.*

As the medical witness will most likely be among the first who sees the parties accused and accusing, he should certainly have his wits about him, as he will be called upon by the Court for general as well as professional evidence.

A female child under twelve years of age, is, in law, deemed incapable of consenting to any act, much less to her dishonour. The carnal knowledge therefore of such an infant is virtually a rape. We find so little that concerns the medical evidence on this disgusting subject in the work before us, that we shall pass on to the succeeding section.

3. *Homicide.* It is to aid the administration of justice, in cases of homicide, that the medical practitioner is most frequently called upon to give professional evidence. It is therefore necessary that he should, in the first place, determine by minute examination, inspection, or dissection, whether death

---

"* The injuries thus occasioned, consist in rupture of the hymen, swelling, contusion, inflammation, or laceration of the parts, discharge of blood; and in persons of extreme youth, the laceration of the perineum is said to have sometimes occurred; and as Rape cannot be completed without considerable violence, we should also expect to find marks of force in other parts of the body, such as bruises about the arms and thighs; but in appreciating the value of such indications, let the practitioner remember, that the greater part of them may occur where the connexion has taken place with the consent of the female, or they may even be the effect of disease. Dr. *Percival* relates a case where the inflammation of the pudenda, and symptoms of defloration occurred in a child of four years old, which occasioned her death; there were strong reasons for suspecting that she had been injured by a boy of fourteen years of age, and he was accordingly taken into custody; but the case received elucidation from several others of a similar nature having been shortly afterwards received into the same hospital, and of whose nature no doubt could be entertained." 418.

was caused by violence, or attributable to natural causes. The subject divides itself into several branches, and these we must follow seriatim.

Real and Apparent Death. The difference between these two states is not so easily defined as one would expect.

Putrefaction, considered by many authors as unequivocal evidence, does not display itself immediately after death. On the other hand, in certain morbid states of the living frame, so feebly do the powers of life resist the operation of physical agents, that a consideration very analogous to putrefaction obtains before respiration and circulation cease. We lately saw a remarkable instance of this kind, in the person of an elderly man of the name of Hill, in Great Windmill-Street. He had been for a considerable time affected with hydrothorax, and at length sphacelus of the integuments of the lower extremities took place, and spreading from thence almost the whole surface of the body became black and sphacelated before he expired. It is properly remarked by our authors, that the test of death must rather be sought for amongst those signs which indicate the quiescence or cessation of the functions of life, than from those which manifest the decomposition of the organs by which these functions are performed.

"The total cessation of respiration, pulsation, sensation, and all motion, it might be supposed, would indicate, to the least experienced, the departure of life, while the general aspect of the body, its pale and livid hue, the coldness of its surface, and the stiffness of its limbs, we might conclude were signs so palpable and satisfactory as to defy the possibility of doubt. To the skilful medical practitioner we apprehend such signs must ever be unequivocal; but we are not prepared to say that a common observer may not be sometimes deceived by them; in cases of extreme debility, as in the latter stage of fever, and where the patient is confined in vitiated air, the exhaustion may be so considerable as to lend all the appearance of death; indeed, that such cases have occurred we have no less a testimony than that of the philanthropic *Howard*, who, in his work on Prisons, says, 'I have known instances where persons supposed to be dead of the gaol fever, and brought out for burial, on being washed with cold water, have shown signs of life, and soon afterwards recovered.'" Vol. ii. p. 4.

We do not deem it necessary, however, to amuse, or rather tire the reader with narratives of those numerous *nugæ canoræ* that fill the pages of some popular productions on the subject of trances, premature interments, and extraordinary resuscitations. The public always have, and always will betray a morbid curiosity for such stories, whether true or false—but, for

our own parts, we are very sceptical on these subjects.* We cannot, therefore, compliment the poetical erudition except at the expense of the judgment of our authors, in quoting scenes from Shakspeare or fables from Tasso, in a work on Medical Jurisprudence. Certes a court of law or a coroner's jury will not lend much ear even to "the sighs of Clorinda issuing with her blood from the trunk of the cypress;" nor to "the sufferings which attended the confinement of Ariel, by the witch Sycorax within the rift of a cloven pine."

"'She did confine thee,
By help of her more potent ministers,
And in her most unmitigable rage,
Into a cloven pine; within which rift
Imprison'd, thou didst painfully remain
A dozen years.'"

"'Thou best knows't
What torment I did find thee in: thy groans
Did make wolves howl, and penetrate the breasts
Of ever-angry bears; it was a torment
To lay upon the damn'd.'"

"*Tempest, Act* 1, *s.* 2."

We should hold ourselves not justifiable in quoting these passages from the original authors; but we have sufficient excuse in bringing them forward for the support of our general charge of irrelevancy and supererogation in a didactic work on a grave subject. The following passage, though not free from the besetting sins of the whole publication, contains enough of redeeming matter to merit a place in our pages.

"We feel no hesitation in asserting that it is physiologically impossible for a human being to remain more than a few minutes in such a state of asphyxia, as not to betray some sign by which a medical observer can at once recognise the existence of vitality, for if the respiration be only suspended for a short interval, we may conclude that life has fled for ever; of all the acts of animal life this is by far the most essential and indispensable; *breath* and *life* are very properly considered in the Scriptures as convertible terms, and the same synonym, as far as we know, prevails in every language However slow and feeble respiration may become by disease, yet must always be perceptible, provided the naked breast and belly be exposed; for when the intercostal muscles act, the ribs are elevated, and the sternum is pushed forward; when the diaphragm acts, the abdomen swells; now this can never escape the attentive eye, and by looking at the

* See our review of Mr. Whiter in a former number of the Journal.

chest and belly we shall form a safer conclusion than by the popular methods which have been usually adopted, such as the placing a vessel of water on the thorax, in order to judge by the stillness or agitation of the fluid; or holding the surface of a mirror before the mouth, which, by condensing the aqueous vapour of the breath, is supposed to denote the existence of respiration, although too feeble to be recognised in any other way.

> ——"'Lend me a looking-glass;
> If that her breath will mist or stain the stone,
> Why, then she lives.'" "*Lear, Act.* v. *s.* iii."

"For the same purpose, light down, or any flocculent substance, from the extreme facility with which it is moved, has been supposed capable of furnishing a similar indication; but the result must not be received as an unequivocal proof, and accordingly *Shakspeare*, with that knowledge and judgment which so pre-eminently distinguish him, has represented *Prince Henry* as having been thus deluded, when he carried off the crown from the pillow of *Henry* the *Fourth*.—

> ——"'By his gates of breath
> There lies a downy feather, which stirs not.
> Did he suspire, that light and weightless down
> Perchance must move.'" 12.

It may be remarked, however, that an imperceptible current of air may agitate the light down, and thus simulate the effects of respiration;—while an exhalation, totally unconnected with that function, may sully the surface of a mirror held before the mouth.

In respect to the circulation, the absence of pulsation in the heart and arteries is no infallible criterion of death. In many people the action of the heart is not to be felt in health; and we have seen instances of non-pulsation in any tangible artery for hours together. Stiffness of the body is another criterion which has been much insisted on. It is not unequivocal; but as a medical practitioner can hardly be deceived, after he has examined all the functions and circumstances, we shall pursue the subject no farther.

Physiological Causes and Phenomena of Sudden Death.—The aphorism of Bichat holds true, with very few exceptions, that, when death takes place suddenly, it must be from the cessation of the functions of the heart, brain, or lungs; although it is difficult to say which of these organs is the first to fail in its action. The exceptions are cases of sudden death in which the principle of animation would seem to be at once annihilated in every part of the machine—every organ appearing simultaneously affected, as from the agency of intense cold, lightning, electricity, &c.

We shall not dwell on the various hypotheses that have been invented to explain the mysterious connexion and dependence existing between the functions of the heart and lungs. We know that when respiration ceases the action of the heart soon ceases also. But we are very far from being so completely satisfied with the explanation of Bichat as our authors appear to be.

"It was reserved for *Bichat* to offer a true explanation of this phenomenon: he has very justly stated that, in consequence of the suspension of the respiratory function, the coronary vessels, by which the muscular structure of the heart is supplied, are compelled to carry black, instead of scarlet blood; a fact which in itself is quite adequate to explain the cause of the heart ceasing to contract; for the irritability of this, like that of every other muscle can be alone maintained by duly oxygenized blood." 20.

We imagine there is much to be learnt respecting the physiology of the circulation in all its bearings, and especially in the above respect. M. Lallemand has published the history of a fœtus, in which the brain and spinal marrow were wanting, and yet it even exceeded the usual size. It died, of course, when it was separated from the mother, because the diaphragm and other muscles of respiration were unable to perform their functions without the aid of nervous excitement. We lately examined the heart of a child seven or eight months old, (a patient of Mr. Delph's of Edmonton,) where there was no pulmonary artery. A free communication existed between the auricles and ventricles of the heart, so that, in fact, it was only a single heart, for the blood brought from the general circulation by the cavæ was passed from the right to the left side of the heart, and from thence into the aorta. The pulmonary veins could scarcely be distinguished, and the lungs could only have received blood by the bronchial arteries. The child, however, lived seven or eight months, subject to fits and several anomalous affections, by which it was cut off at last. It is curious that there was little if any blue colour, except during the paroxysms. By these observations we do not deny that cessation of pulmonary function causes cessation of the heart's action. We only demur to the explanation given by Bichat. Our own opinion is, that when respiration ceases the circulation through the lungs soon ceases, and then the heart is no longer supplied with blood of any kind—consequently its function also soon ceases. On the other hand, when artificial respiration commences, the circulation through the lungs commences, or is accelerated, and supplies the heart with blood.

The circulation of the fœtus, where the lungs are collapsed, is no objection, because the foramen ovale being opened, the collapsed lung offers no impediment to the circulation. After breathing has once commenced, however, the case is altered. The foramen ovale closes, and cessation of respiration produces, we think, cessation of circulation through that organ. By a quotation farther on it will be seen that when respiration ceases the right ventricle is found distended, and the left empty ---showing that the passage of blood through the lungs very soon ceases when respiration ceases and thus gorges one side of the heart, while the other empties itself into the aortic system.

In respect to the connexion between the brain (with its appendages) and the heart and lungs, it is considered as proved "that the brain is immediately necessary to life, *only* because the muscles of respiration owe their action to its influence."

"A question has arisen, says *Mr. Brodie, (Manuscript Notes)* whether the whole of the brain is essential to the function of respiration, or whether the power of calling the respiratory muscles into action may not reside in some particular part of that organ? It has been stated by *Le Gallois* that if you expose the cavity of the cranium, and remove the upper part of the brain, the muscles of respiration continue to act as usual; if, however, the dissection be continued, as soon as that portion of the *Medulla Oblongata* is removed which corresponds to the *Corpora Olivaria*, their action is immediately suspended. The theory which such an experiment naturally establishes has received no inconsiderable support from the history of a fœtus, published by *Mr. Lawrence* in the Medico-Chirurgical Transactions: in this monster the *cerebrum* and *cerebellum* were entirely absent, but the *Medulla Spinalis* was continued for about an inch above the *Foramen Magnum* of the occiput, so as to form an imperfect *Medulla Oblongata*, and to give origin to several nerves. Death did not take place immediately after birth, as in other instances of cerebral deficiency, but the child breathed for four days after it had been expelled from the uterus." 20.

"In farther illustration of these views, let us observe the mode in which death takes place in apoplexy, or in cases of pressure on the brain, whether occasioned by a depressed portion of bone, or by blood extravasated within the cranium. At first the patient is insensible to all external impressions, but the breathing is not affected; after an interval, however, the respiration becomes difficult and laborious, and the purple hue of the lips and cheeks, from the subcutaneous vessels, demonstrates that the blood is imperfectly oxygenized. *The arterial action becomes more slow, in proportion only as the respiration is more difficult; and the pulse may even be distinguished at the wrist, after the breathing has altogether ceased;* under such circumstances it is obvious that life might be protracted for several hours by artificial inflation of the lungs, but as no ultimate benefit could be derived from such an operation, its expediency may be fairly questioned." 22.

Upon the passage marked in italics in the above quotation, we may remark that we have seen many people die of apoplexy, but not one exhibited the phenomena of pulse at the wrist after respiration had altogether ceased. On the contrary, (and we appeal to the personal experience of every individual,) the pulse disappears, in nine cases out of ten, before the respiration ceases entirely. Neither does our experience correspond with that of our authors respecting the pulse becoming *more slow* in proportion to the difficulty of breathing. In the great majority of cases that we have seen, it was just the reverse. It became quicker and more irregular as the final catastrophe advanced. If this be doubted, let our authors turn to Dr. Cooke, and hear what he says. "It is," says he, "at first regular, strong, full, *slow*, beating from 55 to 65 times in a minute; but as the disease advances, it becomes weaker and *more frequent*; and in the end irregular and intermittent." Upon the whole, we consider the above passage as one that is warped by theory, and made to bend in accordance with a physiological problem, rather than the offspring of unbiassed observation at the bedside.

Syncope. From this section we cannot glean any thing interesting. The following aphorism appears to contain the marrow of the whole. "It would appear that where the heart has ceased to pulsate, *in consequence of the cessation of respiration, it can never again be set in motion*; but that where it has stopped from other causes, as from the operation of certain poisons, its muscular irritability not having been exhausted, its action may be occasionally revived." 26.

Suffocation—defined the destruction of life from suspended respiration occasioned by *external violence* without this last adjunct, the definition would be too extensive, embracing apoplexy, fatal intoxication, and various diseases of the brain and spinal marrow. It has been shown by Bichat, our authors observe, that when dark coloured blood is injected into the vessels of the brain, the functions of that organ become immediately disturbed, and soon cease.

"It is not until *after* the full effects of the suspended respiration are thus produced on the *brain*, that the motions of the *heart* become enfeebled, and that the ventricles contract less powerfully, and at longer intervals; at length, the action of the heart is altogether arrested, and if the thorax be examined at the instant that the circulation has ceased, nothing is observed, except a slight tremulous motion of the auricles;

the cavities of the left side are much contracted, and contain only a small quantity of blood, while the right auricle and ventricle, and the large vessels communicating with them, are distended to an unusual size." 33

Now how does this passage accord with the physiology of our authors, which makes the cessation of the heart's action depend on black blood in the coronary arteries? In the above passage it appears that this cessation does not take place till after the full effects of unoxigenated blood are produced on the *brain*. Again, if it be black blood in the coronary arteries which stops the heart's action, how is it that one ventricle is found full and the other empty on opening the chest? Does the coronary artery supplying the left ventricle carry blood of a redder colour than that supplying the left, to enable it to act after the other has ceased? Does not this passage plainly prove that in a few minutes after respiration ceases, blood ceases to pass through the capillary system of the lungs, in consequence of which the right ventricle becomes distended, while the left contracts on till no blood is left for it to act upon?

Drowning. It is hardly necessary to remark on the antiquated and erroneous physiology which attributed death in drowning to water getting into the lungs instead of air. An animal might as well attempt to breathe fire as water—the muscles of the glottis refusing access to any but the natural element of the lungs—air. We shall give a quotation exhibiting the physiology of drowning as far as our knowledge at present extends.

"If a small animal be immersed in water, contained in a transparent glass vessel, the phenomena of drowning are readily discernible; there is first a deep expiration, by which bubbles of air are expelled from the lungs; there is then an effort to inspire, but the effort is ineffectual; there being no air which can be received into the lungs, and a spasm of the muscles of the glottis seems to forbid the admission of any considerable quanty of water into the trachea. The attemps to breathe are repeated several times, and at each attempt at expiration a small proportion of air is expelled from the mouth and nostrils, until the air-cells of the lungs are almost emptied;* then the animal becomes in-

* "*Mr. Coleman* examined the lungs of a cat which had been drowned, by placing a ligature on the trachea, removiug the lungs from the thorax, and then making an opening in the trachea under water, so as to collect the air which issued from the orifice; the whole quantity of air thus obtained, amounted only to half a drachm; yet the same lungs when inflated, required as much as two

sensible; and convulsive action of the voluntary muscles mark the instant when the brain begins to suffer from the influx of the dark coloured venous blood. After the cessation of these convulsive actions, the animal becomes motionless, and gives no sign of life; but if the hand be applied to the thorax, the actions of the heart, gradually becoming fainter and fainter, indicate that some remains of vitality still linger in the system. Before the circulation of the blood altogether ceases, the muscles of respiration once more resume their actions, and ineffectual efforts are made to breathe. It is a remarkable circumstance that the diaphragm continues to exert itself nearly as long as the heart itself, and that the interval between the cessation of the motions of the diaphragm and that of the motions of the heart, which is so short in animals that die by strangulation, is still shorter in those who perish by drowning. These phenomena follow each other in rapid succession, and the whole scene is closed, and the living animal is converted into a lifeless corpse, incapable of recovery, in the brief space of a few moments. (*Brodie's Manuscript Notes.*) If, however, the animal be taken out of the water before the total extinction of life, and the diaphragm contract afterwards, so as to draw air into the lungs before the action of the heart has ceased, the circulation is maintained, and the animal continues to respire; he will thus have escaped immediate death from suffocation; but his life still remains in jeopardy, for there is a second period of danger, and one at which death may take place, when we are the least prepared to expect it; for the dark coloured blood which has been transmitted through the circulatory system, during the suspension of respiration, would seem to act like a narcotic poison upon the brain; no sooner therefore does it enter that organ, but deleterious effects are produced, the animal at first falls into a state of stupor, the pupils of the eyes become dilated, the respiration laborious, the muscles of the body convulsed, and the animal dies, *poisoned by its own blood.*" 37.

To be sure these extracts, as usual, bear very little on legal medicine; but they are more appropriate in a miscellaneous medical journal than in a work professedly on Medical Jurisprudence. The following are more in character.

The body of a person who has died from drowning exhibits a physiognomy which it is proper to notice. The whole sur-

---

ounces of air, by measure, for their distention. Nor would the presence of water appear to be immediately fatal, when introduced into the lungs; *Dr. Goodwin* poured two ounces of water into the lungs of a cat, through an opening made between the cartileges of the trachea; the animal had an immediate difficulty of breathing, and a feeble pulse, but lived several hours afterwards without much apparent inconvenience; it was at length strangled, and the water was found in the lungs. From which it would appear, that the admission of a certain portion of water, does not tend to hasten death. The author of this note was present at an experiment made by *Mr. Brodie*, in which he drowned a guinea pig, whose trachea had been previously perforated; so that in this case, no spasm of the glottis could arrest the ingress of the water into the pulmonary air cells; but this produced no modification of the usual symptoms; nor did it prevent the resuscitation of the animal, which was afterwards effected by the appropriate methods."

face is distinguished by a remarkable coldness and pallor—the eyes are half open, and the pupils much dilated—the tongue is pushed forward to the internal edges of the lips and sometimes wounded—the mouth and nostrils are covered with foam. Sometimes, instead of a pallid visage, we have it swelled, and bloated with livid blood. On dissection, the vessels of the brain are more or less gorged with blood—in the trachea a watery and bloody froth will be found—the lungs expanded, full of frothy mucus, and generally livid. "The right cavities of the heart gorged with blood, the left nearly empty." The stomach will generally be found to contain some water. The presence of water in the stomach and lungs has given rise to great controversy; for as it was found that no water entered these organs when a corpse was immersed in water, it was inferred that the presence of that fluid in these organs necessarily proved that the individual must have been plunged into the water during life. As a general proposition this may be admitted as correct, although there are exceptions with which the medical jurist ought to be acquainted.

"We may, for instance, suppose a case, in which the submerged person may be so plunged at once under water, as to have been suffocated without his previously coming to the surface, and when *asphyxia* has taken place, the powers of deglutition, on which the presence of water in the stomach wholly depends, are at an end; or we may suppose that the party in question faints from terror; a remarkable instance of this kind is quoted by *Foderé*,* from *Plater*, of a young woman, who having been condemned to be drowned for infanticide fainted at the moment she was plunged in the water, and having remained for a quarter of an hour under its surface, recovered after being drawn out."† 39.

In respect to the bronchiæ and lungs the quantity of water forced into these parts during the dying struggles of a drowning man is extremely small. Mr. Brodie found less than a drachm in the bronchial vessels of a cat. But although the presence of frothy fluid in the lungs may be considered as presumptive proof that the person found in water had perished by drowning, the converse of this proposition is by no means established by the absence of such an indication.

The buoyancy of the human body is another point which has occasioned much discussion among our continental brethren

* "Medicine Légale, vol. iii. p. 85."

† "During such a state of the body there would be but a feeble call for oxygen; it is muscular action which so rapidly expends this important principle."

in particular. It is not, however, worth discussing in this place. The human body being somewhat weightier than its bulk of water, sinks therein. About the fifth day the generation of gas in the abdomen raises the corpse to the surface, the head and legs downwards, the loins upwards. This, we believe with our authors, is generally the position; but we have seen bodies floating *belly upwards*, when the abdomen happened to be *greatly* distended with air. It has been said, that a different position from that described (loins uppermost) will take place where the person has been strangled before he is thrown into the water; it being contended that in this latter case the lungs will be distended with air, and consequently that the buoyant power will be in the thorax. This distinction we are disposed, with our authors, to reject. "The fact is, that, in relation to gaseous contents, the lungs are the same in strangled as in drowned persons; for in both cases a quantity of air is forcibly expelled from them before dissolution."

Hanging. Although we must allow that the immediate cause of death in these cases is suffocation, yet it cannot be denied that other injuries are sustained, as pressure on the vessels and nerves, fracture of the spine, or dislocation of the odontoid process. It was long believed that apoplexy was the cause of death in hanging; but it is proved that the pressure on the vessels of the neck only *occasionally* produces that sanguineous congestion in the brain which is remarked in apoplexy. Dr. Hooper has a preparation showing this phenomenon. Gregory and Brodie have made experiments to show that it is suffocation not cerebral congestion which is the usual cause of death. An experiment of Mr. Brodie's renders it probable that the pressure sustained by the nerves would occasionally cause death or much inconvenience, allowing that the person recovered from the other consequences of hanging. There can be no doubt that fracture or dislocation of the cervical vertebræ sometimes occurs, especially where the person is heavy or the drop high. Hanging is said by our authors (how can they tell?) not to be a painful death. The violent convulsions that follow the repeated and ineffectual struggles for breath "arise in consequence of the *dark-coloured blood* having reached the brain and spinal marrow, and the animal at this period is necessarily insensible." We apprehend there is much gratuitous phisiology here. Have our authors never seen living and sensible bodies agitated by painful convulsive spasms? If they have not, others have. We have at least as good ground to believe that

the first convulsive movements of a hanging man are accompanied by painful feelings, as that the black blood has got to the brain and rendered him insensible. But independently of this consideration, who can believe that the violent and repeated, but ineffectual efforts to breathe, are not accompanied by sufferings, however transitory, that no tongue can describe! The dramatic symptomatology of hanging, in the work before us, is supplied by Shakspeare's *Henry* VI. *Part* II. *Act* III. *Scene* 2, to which we refer our readers:

The post mortem appearances in the brain are the same as in drowning, but the lungs, of course, do not contain water. We do not perceive that our authors have been able to lay down any distinctive marks whereby we can discriminate the effects of common hanging from those of manual strangulation.

Want of Oxygen. We all know that if atmospheric air be deprived of oxygen it is no longer capable of supporting respiration. Thus death takes place from exposure to the fumes of charcoal, lime kilns, cellars, caverns, wells, and dungeons. The history of the black-hole at Calcutta was too good to escape our authors, and accordingly *five pages* are occupied with the details! The connexion between this diabolical piece of eastern tyranny and medical jurisprudence, we are totally unable to perceive, and its physiological bearings might have been stated in less than half a page. But we are sorry to say that the work before us appears to be constructed on the same principles as the French *Dict. des Sciences Medicales.* The authors of both productions appear to have entertained a horror of the word "*finis*," like that which we feel towards annihilation; and both seem to have grasped at every collateral subject and circumstance to keep at a distance the dreaded determination.

The physiological remark elicited from our authors by Mr. Howell's melancholy narrative is this—that when oxygen is deficient we should keep ourselves as quiet as possible, since muscular exertion causes a greater expenditure, and consequently a greater demand for that constituent of respirable air.

There are other ways by which suffocation may be produced, as where the respiratory muscles are paralyzed, or have not room to act:—thus a person buried in a heap of ruins, though his head be free, may perish from the pressure of the surrounding substances; and in this way it is probable that criminals

have died under the pressure made on their breasts by weights when they refused to answer questions, &c. Although the law which warranted this cruel process is obsolete or repealed, and consequently the practice abolished, yet the process is carefully detailed by our authors, agreeable to the general tenor of the work, which, in fact, treats "*de omnibus rebus et quibusdam aliis.*"

We shall not follow our authors in their serious refutation of the "incredible mode of suicide" said to be practised by slaves and negroes, namely, "swallowing their tongues"—nor the "voluntary suspension of breathing," by which some have been said to make their exit. The last mode of suffocation adverted to in this work is, from the entrance of foreign bodies into the aperture of the glottis. Instances of this kind are so familiar to every body that, were it not for learning's sake, it might appear unnecessary to record the deaths of Anacreon and Gilbert, of poetical celebrity, the former of whom perished by a grape seed, and the latter by a piece of mutton. A curious case has been communicated by Mr. Alcock, of a patient who died in an epileptic fit with which he was seized after a hearty meal of pork. On opening the trachea it was found to contain a quantity of animal matter resembling the meat he had eaten.

Exposure to Cold. The histories of Sir Joseph Banks, the Northern Expedition, the Russian Campaign, &c. are all familiar illustrations of the effects of a low temperature on the human frame.

"*Animal heat*, as Mr. *Brodie* observes, *is in some way or other dependant upon the integrity of the functions of the Nervous System*; and consequently the absolute degree of cold which an animal can bear with impunity will, *cæteris paribus*, be determined by his powers of producing heat; we must therefore cease to regard the fact as extraordinary, that an animal, which is under the influence of a deleterious narcotic poison, or in whom, from any other morbid cause, the powers of the nervous system are exhausted, may be destroyed by a diminished temperature, that would scarcely affect even the sensations of one, differently placed in relation to his nervous energy; thus it is with a person in the last stage of intoxication, in whom the powers of life are ebbing, in consequence of the previous state of morbid excitement; in the course of the last winter, two instances occurred of drunken persons being taken to the watch-house; where, there not being any charge against them, they were dismissed by the constable of the night, and perished in the streets." 60.

Mr. Brodie classes the effects of cold in the following order:

"1. It lessens the irritability, and impairs the functions of the whole nervous system.
"2. It impairs the contractile powers of the muscles.
"3. It causes contraction of the capillaries, and thus lessens the superficial circulation, and stops the cutaneous secretion
"4. It probably destroys the principle of vitality, equally in every part, and does not exclusively disturb the functions of any particular organ." 61.

Death by Lightning. Thunder and lightning are unquestionable electrical phenomena. The human body is alike affected by both. The experiments of Mr. Brodie would lead us to suppose that the lightning or electric shock does not destroy vitality equally in all parts of the body, as was believed by John Hunter and others, but that, on the contrary, the functions of the brain were those on which the electric shock exercised its primary influence. We shall not follow our authors in their elementary disquisitions on the nature of thunder and lightning, and whether life is always lost by the discharge from the cloud to the earth, or from the earth to the cloud. All these things are taught in the chemical lectures and chemical writings familiar to the profession. It is perfectly evident that if such elementary matter necessarily compose a part of medical jurisprudence, then there is no branch of science unconnected therewith—consequently the whole life of man—at least of a medical man, may fairly be devoted to medico-legal searches.

Starvation. The power of abstinence from food varies with the age of the individual. He will perish from inanition with a rapidity proportioned to his youth and state of robust vigor. Women are able to support abstinence longer than men.

"It has been also observed that a moist atmosphere contributes to the protraction of life, under circumstances of privation; this may depend, not only upon the fluid matter thus furnished to the body, but upon the non-conducting power of the medium, in relation to aqueous vapour: the ingestion of a very small proportion of water revives in an extraordinary degree, the animal perishing from famine, and prolongs his existence. *Redi* instituted a series of experiments with the sole view of ascertaining how long animals can live without food. Of a number of capons which he kept without either solid or liquid food, not one survived the ninth day; but one to which he allowed water, drank it with avidity, and did not perish until the twentieth day, *Elizabeth Woodcock*, who was buried under the snow, near Cambridge, for the

space of eight days, undoubtedly owed her preservation to the snow which she occasionally sucked."* 68.

The extraordinary cases of fasting recorded in various transactions and journals are justly considered as impositions on the credulity of mankind. Our authors detail in four pages the history of Viterbi's voluntary starvation in one of the prisons of Corsica, as recorded in the Medical and Physical Journal for March 1822. He lived nearly three weeks before he effected his dreadful purpose. A much more curious case is related in Falret's. The siege of Jerusalem, and the shipwreck of the Medusa, with the dreadful raft scene close this section of the work.

Treatment of Asphyxia. This is an important subject, and we were greatly surprised to find that the ideas of our authors coincide with our own upon some essential points wherein we have long differed from the general tone of professional as well as popular tenets. From circumstances unnecessary to mention here, we have had numerous opportunities of seeing and also of practising the usual means resorted to for restoring suspended animation, especially in cases of drowning; and we are sorry to say our experience and observations by no means tended to confirm the gratifying reports which we every day see made by humane societies and their now numerous affiliations. Our attention, therefore, was strongly excited by the following passage which opens this section.

"But the fact is not to be concealed, that the medical profession, as well as the public, have long been too sanguine in their estimate of the probabilities of recovery by art, in cases where life is suddenly arrested by the operation of external causes; and upon this occasion, the establishment of the 'ROYAL HUMANE SOCIETY for the recovery of persons apparently dead,' requires some notice, in relation to the possible extent of its successful exertions. Without some explanation it will be impossible to reconcile the reports of that philanthropic institution, with the physiological views which we have attempted to establish in the present work; it therefore becomes a part of our duty to explain the nature of the fallacies into which the witnesses and reporters of cases of suspended animation appear to us to have been unconsciously betrayed, and which have so frequently bestowed upon fable the colour of truth, and given to vague report, the apparent stability of credible testimony. In the first place we would observe, that

* "This event occurred during the period of the author's studies at Cambridge; and he can therefore offer his testimony to the truth of the statement; he visited the woman soon after her disinterment." 68.

in those cases in which a long interval is stated to have occurred between the suspension of breathing, from drowning, and the restoration of that function by art, it is probable that the anxiety of by-standers who witnessed the struggles, and the impossibility of justly appreciating the lapse of time in such moments of anxiety* and distress, have led to the erroneous statements with which the subject is embarrassed. There is, moreover, another fallacy into which the anxious observer is very likely to fall,—the sufferer may have breathed unobserved during the alledged interval of asphyxia; and if this fact be admitted, we at once reduce some of the most incredible of these reports to the rational standard of physiological probability Nor shall we hesitate in the present chapter to offer our remarks upon the plan of recovery proposed by this society with as much freedom, and as little reserve, as we have ventured to question the literal accuracy of their reports. But while, thus fortified by physiological arguments, we profess to discredit many of the results stated by this society, let it not be supposed that we would prefer a charge of insincerity against their authors, or attempt to withhold any portion of that public patronage and consideration, to which their zeal and philanthropy so justly entitle them." 77.

The following may be considered as the principal resources upon which the Humane Society rely for the restoration of suspended animation, viz. inflation of the lungs—application of heat—internal exhibition of stimulants—friction—electricity—cool air—blood-letting.

From Mr. Brodie's manuscript notes much information is derived by our authors on the first or most important measure, the inflation of the lungs. Mr. B. considers a common pair of bellows preferable to those manufactured for the Humane Society. Single ones are sufficient, for the air will escape from the lungs without suction. It is not advisable to insert the nozzle in a wound in the trachea. A tube may be introduced into the rima glottidis, which can be effected without much difficulty; but Mr. B. thinks it more expedient to inflate the lungs by means of a tube inserted into one nostril, keeping the other and the mouth carefully closed. The bellows thus disposed, the air should be driven into the lungs with a certain degree of

* "That which we call duration is in fact a feeling of succession, and is computed by the number of ideas that pass through the mind; whenever an event occurs which powerfully excites the attention of an observer, he watches the most minute change, whence he believes that the time which elapses before the whole event is completed, appears to be unusually prolonged. When the infidel sultan of Egypt refused to believe that Mahomet could have ascended into the seven heavens, and have held some thousand conferences with the Almighty in the space of a few minutes, the learned mussulman, who was consulted on the occasion, endeavoured to turn His Majesty to a more strict faith, by demonstrating to him that a short period of time became converted into a long one, when a great multitude of important events were crowded into it."

force. They will thus become inflated, and in the intervals of inflation the air will escape by the mouth and the other nostril. There is one objection, however, to this process—the escape, at each inflation, of a portion of air into the stomach—an event, if possible, to be avoided, since distention of the stomach will prevent the descent of the diaphragm, and thus prevent a perfect inspiration. To obviate this, the thyroid cartilage should be pressed close back upon the upper part of the œsophagus, so as to close it against the ingress of air. All the operator has to do is to inflate the lungs—the deflation will be produced by the elasticity of the ribs, and the pressure of the abdominal muscles and viscera. As for the inflation by oxygen gas—its propriety is doubtful, and loss of time is certain.

Application of Heat. The bath is preferred by our authors to all other means; but they seem to forget that in not one case of 500 can this process be employed without fatal delay. Warm flannels, bags of sand, or any thing that comes first to hand, should be the means employed.

Galvanism. The sanguine expectations of physiological enthusiasts, respecting this means of resuscitation, have ended in disapdointment.

"We are bound to confess that although *galvanism is capable of exciting extraordinary contractions in the* VOLUNTARY *muscles, and of astonishing the multitude, yet its influence does not extend to those that are* INVOLUNTARY. *Bichat* states distinctly that *the involuntary muscles are beyond the reach of galvanism.* Mr. *Brodie* has frequently attempted to restore the heart's action by the galvanic stimulus, in an animal dead from syncope, but never with success." 83.

The bellows are preferable in all respects to the galvanic trough.

Particular Cases of Asphyxia. Where the action of the heart fails before that of the respiratory organs, artificial inflation can be of no service. In syncope, our authors think that the introduction of wine, volatile alkali, and other stimulants into the stomach may be serviceable—but not so in suffocation.

Cessation of Respiration, the Heart continuing to circulate Black Blood.

"It has been stated that in cases of suffocation the heart continues to contract for a short period, after the cessation of breathing; that this interval is extremely short, but liable to vary from several causes and that it is uniformly shorter in cases of death by drowning than in

those by strangulation. To the physician this is an interval of anxiety and importance; let him beware how he trifles with the fleeting moments, in which alone the resources of his art can be of any avail. If artificial respiration be established at this period, the blood will become once more oxygenized, the action of the heart will be continued, the scarlet blood will be transmitted to the brain, and sensibility will therefore return; the nervous energy will be once more transmitted to the respiratory organs, and the animal will at length make a voluntary effort to inspire air. Here then is the interval of time, during which artificial breathing may be employed so as to effect a restoration to life, where death must otherwise have been inevitable. Mr. *Brodie* has made a great variety of interesting experiments upon this subject, from which may be deduced the following important corollaries.

"1. If the lungs be inflated, the action of the heart will continue.

"2. If the action of the heart has become feeble, but the circulation is nevertheless not entirely suspended, the inflation of the lungs will cause the feeble actions to become again frequent and vigorous.

"3. If the action of the heart has entirely ceased, it is impossible to restore it by the inflation of the lungs.

"4. If the action of the heart has not entirely ceased, but is so feeble as no longer to maintain the circulation, the artificial respiration will prove as useless, as if the heart were perfectly motionless." 87.

As it is stated by our authors that the heart rarely if ever continues to act more than four or five minutes after respiration ceases, it follows that this is the only interval in which there is any chance of renewing the suspended animation! If this be the case, (and we fear it is too near the truth,) what becomes of all those boasted re-animations after *hours* of asphyxia?

It has been proposed, in cases of suffocation, to abstract blood from some of the larger veins. This measure, our authors think, can be of no use as far as relates to the asphyxia; "but incidental benefit may arise where congestion has taken place in the brain, as happens in hanging." "Cordials, moderate warmth, and quiet, are the resources upon which we are to rely for the ultimate recovery of the vital powers, after the complete establishment of the function of respiration." The injection of tobacco, in cases of asphyxia, a practice which, until within a few years, was annually recommended by those "who professed to instruct the profession," is considered by our authors "*as one of the most stupendous errors that ever occurred in the exercise of the healing art.*" We cannot but look on this passage as breaking a fly on a wheel; for according to the physiological principles laid down in this work, which we fear are too correct, ninety-nine in the hundred of those resuscitations which we read of must have been *fabulous*, and therefore it is highly improbable that tobacco clysters have a single life to answer for.

Can this be said of some other errors in the healing art—for instance, the healing regimen in eruptive diseases, and the Brunonian treatment of fevers? To these, rather than to fumes or infusions of tobacco, the epithet "stupendous" might more justly be applied!

Where the asphyxia has arisen from the inhalation of noxious vapours, as those of charcoal, exposure of the body to cold is recommended, in addition to the common means. It is hardly necessary to allude to the antiquated and erroneous notion of water getting into the lungs, and thus being the cause of drowning; nevertheless it appears that a medical practitioner lately acted on this principle, and hung up his patient by the heels! This not succeeding, he gave his opinion in court that the man could not be recovered in consequence of the *impurity of the water arising from the gas works!*

We need not rake up the many stories of men recovering after being hanged, and of having their throats cut previously to being turned off, in order to save their lives while suspended. It is certain that some have escaped the gallows in this way; and no instance we believe, is better authenticated than that of Margaret Dickson, of Musselburgh, who was tried, convicted, and hanged, for the murder of her own child. After execution, her body was cut down and delivered to her friends for interment. While they were transporting it in a coffin to her native place, she popped out her head, and the bearers took to their heels. A person, however, from a public house went to her assistance, and conveyed her to bed. Next morning she walked home, and lived twenty-five years afterwards!

Coroner's Inquest. This short section is legal; but contains some judicious reflections on the office of coroner.

Suicide. Our authors are not disposed to look upon suicide as always an act of insanity. It may be a matter of sober calculation between two evils, though, we imagine, this can rarely be the case. In nine instances out of ten we believe there is a hallucination of the judgment, or, in other words, mental derangement on some point or points connected with the act of self-destruction. As to the punishment which human laws inflict, they can only act on what the criminal has left behind him—his reputation and fortune; on the former, by indignity to the corpse, (now done away)—on the latter, by forfeiture of property. Our authors do not attempt the solution of the question, whether excessive punishment does or does not defeat its object; but they properly suggest that coro-

ners should be more strict in having the bodies carefully examined anatomically.

"We will not maintain with a French author on Medical Jurisprudence, that the signs of insanity can often be discovered on dissection; though we can imagine some cases, as where there has been an excessive determination of blood to the brain, in which this inspection may be satisfactory; (See vol. 1, p 327.) *Fourcroy* and *Durande* have also found, on dissecting persons who had committed suicide, hardness of the liver, and gall stones; and *Foderé* observes that, in failure of other evidence, such appearances deserve to carry some weight But benefit would still result from the practice; first from the general horror in which dissection is held, for if the dread of an ignominious burial, however remote the chance of its infliction, can be supposed to discourage this offence, under the existing law, the certainty of personal mutilation would operate in the proposed alteration." 104.

Murder; and first by wounds. These are divided by our authors into incised, punctured, lacerated, and gun-shot wounds, on each of which some observations are made. They properly remarked that no graduated scale of wounds, expressive of the degree of danger or curability, can ever be formed. The constitution, temperament, age, habits of life, &c. must be taken into account as well as the situation and extent of the wound. The surgical practitioner, therefore, will be cautious in his prognosis, when he recollects the many instances on record of wounded brain, lungs, and abdominal viscera, recovering. In examining wounds the surgeon should endeavour to disturb as little as possible, at first, the position in which the body is found. The scalpel must afterwards investigate its particular conditions and relations. But the general directions of our authors are too vague to enable us to call out any specific information for these pages.

Poisons. Toxicology forms one of the most important and elaborate branches of forensic medicine—a branch that has been enlightened, within the last few years, by many valuable discoveries of chemistry and physiology. That engines so powerful and secret as poisons should have universally excited the terror of mankind is a fact that cannot surprise us, and when we consider how intimate are the relations between fear and credulity, we need not seek farther solution of the many problems to which the exaggerated statements of the ancient toxicologists have given origin. Plutarch, Tacitus, Livy, and others, are full of wonderful stories respecting poisons; nor are modren records unfruitful of the same. The celebrated

Tophena, of Palermo, may be considered as the locust of modern history—the drops which she invented being sold under the appellative of Aqua Tofani, Acquetta di Nipoli, &c.

"With respect to the secret modes in which poisons have been supposed capable of acting, mankind have ever betrayed the most extravagant credulity, of which the numerous tales upon record afford ample proof; such as that reported of *Parasaptis* by *Plutarch*, from *Ctesias*, in his life of *Artaxerxes*, who it is said, by anointing a knife on one side by poison, and therewith dividing a bird, poisoned *Statira* with one half, and with the other regaled herself, in perfect security. We are also told of *Livia* who poisoned the figs on a tree which her husband was in the habit of gathering with his own hands. *Tissot* informs us that *John*, king of Castille, was poisoned by a pair of boots prepared by a Turk; *Henry* VI. by gloves;* Pope *Clement* VII. by the fumes of a taper; and our king *John*, in a wassail bowl, contaminated by matter extracted from a living toad. To these few instances of credulity may be added the offer of the priest to destroy queen *Elizabeth* by poisoning her saddle, and the *Earl of Essex*, by anointing his chair." 137.

The power of so graduating the force of poison as to enable it to operate at any given period, seems to have been entertained by the earlier members of the Royal Society; but is now discarded—unless we take into account the slow *secondary effects* of a poison administered, whereby the constitution may be worn out.

Slow Poisons. There are several examples on record where substances have lodged in the alimentary canal for a considerable time without apparent injury, and afterwads proved fatal, as nuts, plump stones, copper half-pence, &c. but how far such things as these could have been used intentionally, is very doubtful. It has also been supposed, and indeed asserted, that certain bodies, as powdered glass, enamel, diamonds, &c. slowly lacerate the coat of the stomach, and thus destroy life. Upon the same principle it is affirmed that human hair chopped fine, constitutes the active ingredient of a slow poison frequently

---

* "The belief in the possibility of poisoning by the vestments is very ancient, as is shown by the fabled death of Hercules."

"'Capit inscius heros:
Induiturque humeris Lernææ virus Echidnæ
Incaluit vis illa mali; resolutaque flammis;
Herculeos abiit late diffusa per artus.'"

"*Ovid. Metam. Lib.* ix. v. 157."

employed in Turkey, for the purpose of producing a chronic disease resembling cancer in the stomach. Some have supported, others have denied these effects; but, as our authors justly observe, we may reconcile, in some measure, these clashing testimonies, by remembering that these mechanical substances may be a thousand times swallowed with impunity, while, under certain circumstances, the most trivial body may lodge in the intestines and produce death. The whole business of slow poisoning then may be resolved into the two following modes, viz. 1, consecutive poisoning—and 2, accumulative poisoning. The first is, where the patient, having recovered from the immediate effects of a single does, suffers subsequently a series of symptoms from the injured structure to which it had given origin. The following case related by Orfila may serve as a specimen.

"*Maria Ludan* drank by mistake a spoonful of *aqua fortis*. the most violent symptoms supervened. but which by judicious treatment gradually subsided, when at length she passed by stool a long membranous substance, rolled up, and which represented the form of the œsophagus and stomach, and which, in fact, was found to be the interior membrane of these organs; from that moment the sensibility of the digestive organs became excessive, and two months after the accident she experienced a sudden shock and died." 147.

By the repeated administration of a substance in doses, of which no single one could occasion harm, a dangerous and even fatal accumlation in the system may ultimately take place. The administration of mercury is an illustation;—and perhaps arsenic, digitalis, and several other substances, might come under the same head.

General Remarks on Medical Evidence in Cases of Poisoning.

"The great constituents which form the medical proof of poisoning, are derived from Chemical, Anatomical, and Pathological researches: viz.—the existence of poison in the stomach or intestines; the morbid appearances, corresponding to such poison, upon dissection; and the characteristic symptoms which accompanied the action of it, previous to death Where these circumstances occur in combination, the demonstration may be said to be complete, for we have arrived at absolute certainty." 153.

But scientific evidence, short of such perfection, may be sufficient to lead to conviction. The fact of a poison having been found in the body may supercede the necessity of patho-

logical testimony; but pathological without chemical evidence will rarely be satisfactory. Here our authors endeavour to bring the more leading points of controversy within the scope of a few prominent questions, as follow:—

"Q. 1. *Whether all, or most of the symptoms, characteristic of the action of corrosive and narcotic poisons, may not arise from morbid causes of spontaneous origin?*

"Q. 2. *Whether organic lesions, similar to those produced by poisoning, may not occasionally result from natural causes?*

"Q. 3. *Whether the rapid progress of putrefaction, in the body generally, or in any particular part, is to be considered as affording any presumptive evidence, in favour of a suspicion of poisoning?*

"Q. 4. *How for the absence of poison, or the inability of the chemist to detect it, in the body, or in the fluids ejected from it, is to be considered as a negative to an accusation of poisoning?*

"Q. 5. *What degree of information can be derived from administering the contents of the stomach of a person supposed to have been poisoned, to dogs, or other inferior animals?*" 155.

Question the first. It must be admitted that the symptoms produced by *violent irritation* in the primæ viæ are not characterized by a diversity corresponding with that of the causes which may excite it. Thus the symptoms of cholera are induced without any ingesta of an acrid nature—and by poisons or strong emetic substances. Here the practitioner must be guided by various collateral circumstances, as the season of the year, the constitution of the patient, &c. Where corrosive poisons have been taken, there will generally be, in addition to the usual symptoms of cholera, a sanguineous vomiting, extreme buring in the œsophagus and region of the stomach, swollen countenance, great dryness and tumefaction of the fauces, fœtor of the breath, ischuria, with discharges of bloody urine, and ulcerations about the fundament. But it is to be remembered, that in certain circumstances the natural secretions of the liver and chylopoietic organs will occasionally become so acrid and depraved as to produce symptoms very much resembling poison, and not only symptoms but organic lesions. For this we have the authority of Galen, Aræteus, Morgagni, Hoffman and many others, down to the late Dr. Curry. Morgagni's language on this subject is strong. "Facile agnosco à pravâ ipsâ corporis

dispositione internum aliquando posse venenum gigni." Dr. Curry (not Currie, as our authors write the name) states his belief that, under a certain state of irritation, the biliary organs may secrete a bile of so very acrid a nature as to excite an almost immediately fatal impression upon the alimentary canal.

Q. 2. The organic lesions have created much doubt as well as the symptoms. Thus, among the signs of poison, disclosed by dissection, the separation of the villous coat of the stomach has been generally considered the most certain criterion. But every man who has been in the habit of much morbid dissection must have seen this phenomenon both in the stomach and intestines, where not the slightest ground of suspicion existed respecting poison. On the other hand, many vegetable poisons destroy life without causing any inflammation of the primæ viæ But there remains another, and more redoubtable source of fallacy—the erosion of the stomach by the gastric juice.

"*Mr. John Hunter* details the history of three examples, in which the stomach was considerably perforated. Two of the men had died shortly after having their skulls fractured, and the third was a man who had been hanged, so that in each of these cases the person had been deprived of life by violence; whence *Dr. Adams** inferred, that *Mr. Hunter* limited the action of the gastric juice on the stomach to such as died from violent and sudden causes; and many physiologists have, accordingly, supposed that solution of the coats of the stomach never takes place, except where the person has died suddenly; this, however, is an inference, as *Mr. Burns* has very justly observed 'by no means warranted by the general tenour of *Mr Hunter's* essay,' indeed he expressly states, that 'there are few dead bodies in which the stomach is not, at *its great end*, in some degree digested;' 'and any one,' continues *Mr. Hunter*, 'who is acquainted with the art of dissection, can easily trace the gradations from the smallest to the greatest.' The consideration of the vast importance of this fact, and frequent opportunities of investigating the subject, induced *Mr. Burns* to collect the observations which he had made during the dissection of those bodies in which he found the stomach digested, and these observations, he informs us, have led him to conclude, that the phenomenon in question is neither so rare in its occurrence as some have imagined, nor confined to such subjects as had been previous to death, in a healthy condition; they have also convinced him, that other parts of the sto-

* "*Adam's* Observations on Morbid Poisons, edit. 2, p. 30, where he says 'but for this purpose, *Mr. Hunter* saw that the animal must be in health immediately before death, otherwise neither the quantity nor quality of the secretion would be equal to the purpose; he was confirmed in this by the instances in which he saw the stomach digested; both were men who had died from a violent death; both had been previously in sufficient health to eat a hearty meal. The fair inference from these was, that when men die of disease, the appetite usually ceases, and probably the secretion of the gastric juice also."

mach, besides the large end, may be occasionally acted on by the gastric juice. 'That the digestion of the coats of the stomach after death is not a very rare occurrence, I think myself authorised to infer, from my having examined nine bodies in which the solution had proceeded to such an extent as to have made holes of considerable size through that viscus; and, besides these nine instances in which the digestion of part of the stomach was complete, I have had occasion to see, in opening this viscus, various degrees of dissolution of its villous coat."* 168.

In three of the instances alluded to by Mr. Burns, the patients had been worn out by debilitating diseases, being emaciated and anasarcous. That the solution of the stomach, in these, was correctly attributed to the gastric juice, is shown by the following instructive dissection.

"'I had occasion,' says *Mr. Burns*, 'two days after death, to open the body of a very emaciated and anasarcous young girl, who had died from scrofulous enlargement of the mesenteric glands. On raising the coverings of the abdomen, the stomach, which was empty, presented itself to view, *with its front dissolved*"† The aperture was of an oblong shape, about two inches in its long diameter, and an inch in its short, with tender, flocculent, and pulpy edges This I demonstrated to the pupils attending my class; and I especially called their attention to the fact, that the liver, which was in contact with the hole, had no impression made on it. Having proceeded thus far, I placed all the parts as they had been, stitched up the abdomen, and laid the body aside in a cold situation for two days. Then I opened it again, in presence of the same gentlemen, and we found that, now, *the liver, where it lay over the dissolved part of the stomach, was pulpy; its peritoneal coat was completely dissolved, and its substance was tender to a considerable depth.* At this time the other parts of the liver were equally solid as before, and as yet every part of the subject was free from putrefaction; *the posterior face of the stomach, opposite to the hole, was dissolved, all except the peritoneal coat, at least the internal coats were rendered pulpy and glutinous; the peritoneal covering had become spongy and more transparent than it ought to have been.*'" 169.

These facts admonish the medical jurist that the appearances of these solutions will vary according to the period after death at which the body is examined. But the most satisfactory case which has been reported, in proof that the *post mortem* solution of the stomach may occur after a lingering disease, has been recently published by Dr. Haviland, in the Transactions of

* "'It will generally be found that, where the coats of the stomach are softened by the gastric juice, the vessels are unable to resist the force of the syringe in injecting the body. In such subjects, therefore, we find the cavity of the stomach filled with wax, and we likewise see masses of it collected between the coats of the viscus.'"

† "Mark this circumstance, for we shall have occasion to revert to it, when we come to consider *the part* of the stomach which undergoes solution from the action of the gastric juice.

the Cambridge Philosophical Society, Vol. I. p. 287. The patient died of fever after an illness of 22 days; and, on opening the body 12 hours after death, the following appearances were noted.

"'On raising the stomach and examining the little omentum, we were surprised by the appearance of a dark-coloured fluid, which seemed to escape from the former viscus. A most careful search was now made, and a large opening was perceived in the stomach on the upper and back part, near the cardia. The stomach was then detached, with a portion of the œsophagus and duodenum, when a large preforation of the diaphragm came into view, in the mascular part, corresponding precisely to, and communicating with, the hole in the stomach; so that a portion of the contents of the latter organ had escaped into the cavity of the chest. This part of the diaphragm was next removed. A careful examination of the other abdominal and thoracic viscera did not lead to the detection of the slightest diseased appearance. There was no where the smallest evidence of previous inflammation, no adhesions or ulcerations of any part of the viscera. The fluid which had escaped appeared to be nothing more than the contents of the stomach, of which the wine and water* formed a part, and probably gave it its dark colour. The stomach, on being examined after its removal from the body, afforded the following observations. The mucous membrane appeared to be more red and vascular than usual throughout its whole extent, and, here and there, were small spots of what seemed to be extravasated blood, lying below the mucous coat—for these spots were not to be washed off, nor to be removed by the edge of the scalpel. There were two holes in the stomach, the larger very near to the cardiac end of the small curvature, and on the posterior surface, about the size of a sixpence. The edges of these holes were smooth, well defined, and slightly elevated. The coats of the stomach were thin in many other spots, and in one in particular nothing was left but the peritoneum, the mucous and muscular coats being entirely destroyed. The hole in the diaphragm was through the muscular portion, where it is of considerable thickness, and was large enough to admit the end of the finger. There was no appearance of ulceration or of pus adhering to the edges of this perforation of the diaphragm." 171.

Every man, indeed, who has been an attentive clinical observer must have witnessed many examples of the appetite reviving near the close of life, and continuing till the very last hour. In such cases the gastric juice must have its power, and may produce the phenomenon in question.

In respect to the *part* of the stomach acted on, Mr. John Hunter thought that the coats of this viscus would only be acted on at that part on which the contents of the stomach rested. In his practice the great end of the stomach (being

* "He had taken, at intervals, a small quantity of port wine and water."

the most depending part of the organ) was found to be chiefly affected—a fact which tended to corroborate his doctrine. But others having found the erosion in parts of the stomach which the gastric juice, *in the cavity of the organ*, could scarcely touch, the conclusion has been that—"we cannot ascribe the digestion of the stomach, in every case, to the gastric juice which has been *poured into the cavity* of that viscus—we are more properly, in some instances, to refer it to the action of the fluid *retained in the vessels* which *had secreted it*." This is the creed of Burns and of the authors of the work under review. To us it appears that a fluid, say the bile, cannot be said to be *secreted* till it is in the very act of leaving the vessels which secreted it, and passing into the ducts or reservoirs destined to receive it. For example, the extreme vessels of the vena portæ change, or rather form the bile, while the blood is passing through them, and the secreted fluid is never such till it reach the pori biliarii. In *these* vessels *only* can it be "*retained*," but surely it will not be said that these are those "which had secreted it." Applying these observations to the stomach, the gastric solvent may be retained in the emunctories or conduits destined to convey it from the point at which it was formed or secreted to the inner surface of the organ, and there it may act in the manner described; but we maintain that it is incorrect physiology to say that a secreted fluid can be *retained* in the vessels "which *had* secreted it." It is, as we have observed, retained in the conduits leading from the secerning vessels.

"With respect to the appearances, which such erosions assume, some difference of opinion has also unfortunately existed. *Mr. Hunter* has asserted that 'there are very few dead bodies, in which the stomach is not, *at its great end*, in some degree digested; and the anatomist,' says he, 'who is acquainted with dissections can easily trace the gradations from the smallest to the greatest. To be sensible of this effect nothing more is necessary than to compare the inner surface of the great end of the stomach, with any other part of the inner surface; what is sound will appear soft, spongy, and granulated, and without distinct blood-vessels, opaque, and thick, while the other will appear smooth, thin, and more transparent, and the vessels will be seen ramifying in its surface; and upon squeezing the blood which they contain, from the larger to the smaller branches, it will be found to pass out at the digested ends of the vessels, and appear like drops on the inner surface.' This condition, however, of the vessels does not invariably accompany such solution. In three of the subjects dissected by *Mr. Burns*, there was no appearance of vessels ramifying on the coats of the stomach." 173.

We must expect much difference of appearance in these erosions according to the state of the subjects before death, and therefore it is impossible to reconcile all the different accounts by one particular theory. Hunter characterizes them as having their edges apparently half dissolved, very much resembling that kind of dissolution which fleshy parts undergo when half digested in a living stomach.

"As certain corrosive poisons will occasionally produce such organic lesions in the stomach, as lead to perforations in its membranes, a question naturally arises, *how are we to distinguish such disorganizations, produced by causes acting during life, from those which result from solution after death?* To this we may at once return a general answer, that in a judicial investigation, we ought not to attribute erosion of the stomach to poison, except it be accompanied by evident marks of previous inflammation and reaction, or with gangrenous appearances; unless indeed the poisonous substance be found in the stomach, or the symptoms, previous to death, be characteristic and satisfactory." 176.

Here our authors have inserted a report of the memorable trial of Mr. Angus, of Liverpool, for the murder of Margaret Burns, his housekeeper, of which we need not take notice in this place, as it will be alluded to hereafter. The circumstances were very suspicious; but the ingenuity of the medical counsel (Dr. Carson) made it appear (whether true or false cannot now be known) that the erosion of the stomach was owing to the solvent power of the gastric juice; and that the appearances in the womb were equivocal. Better that ten culprits should escape than one innocent man be sacrificed.

"With respect to the possibility of confounding the appearances of gangrene, in the stomach, with those of putrefaction, some notice is necessary in this place; and we cannot better illustrate the subject, than by introducing the marks of discrimination which are considered by *Mahon* as decisive upon such occasions. The spots in the stomach, resulting from putrefaction, says he, may be distinguished from those which have resulted from violent causes, during life, in the following manner. If the stomach retain its natural colour, and the spots are mixed with a red hue, or the ulcers have pale, or bright red edges, such have been the effect of some violent impression upon the living membrane; whereas, on the contrary, if the stomach be pale, livid, or green, and exhibit spots of the same colour, but of rather a deeper hue, we may safely conclude that they are the genuine phenomena of putrefaction." 181.

Q. 3. The rapid progress of putrefaction after death is a popular argument in favour of poison having been swallowed.

But this is very fallacious, as the putrefactive process is well known to take place very rapidly in people who have been cut off in the the very prime of life and health. As far, however, as the observations of our authors extend, certain vegetable poisons appear to accelerate decomposition; for very shortly after death the body, under such circumstances, will frequently swell, become highly offensive, assume a black appearance, and exhibit gangrenous spots on its surface—an appearance alluded to in the following line of Juvenal:—

"Per famam et populum nigros efferre maritos."

This effect does not seem particularly to follow the mineral poisons. In the extraordinary case examined by Metzger, in which a very large quantity of arsenic had been taken, the body was not opened till eighteen days after death, and yet it exhibited neither fœtor nor black spots. Dr. Yelloly relates a case corroborative of the above. Morgagni and others, however, have given contrary evidence, and therefore the fact of accelerated or retarded putrefaction cannot be received with any confidence as a collateral indication of poisoning.

Q. 4. Of all proofs of poison none can be put in competition with the discovery of the substance itself in the stomach or its contents. The medical practitioner, therefore, must be prepared to ascertain, by every possible means, whether such substances are contained in the stomach; nor should any plea of putrefaction prevent the *post mortem* examination. The non-detection of poison, however, is no positive proof that none was administered; because the deleterious substance may have been absorbed or eleminated, during life—it may have undergone chemical changes, or entered into new combinations whereby its characters are masked or wholly changed. Many cases are on record illustrative of these remarks. Dr. Bostock has shown that an animal may be killed by receiving a metallic poison into the stomach, and yet the most delicate chemical reagents may not be able to detect any portion of it in the stomach after death. In a case related by Dr. Henry, an ounce of oxymuriate of mercury had been swallowed, and the fluid ejected from the stomach only twelve hours afterwards exhibited no trace of the poison. Our authors have given the details of the case of poisoning by Mr. Murray, related in the 71st number of our Edinburgh contemporary and analyzed by us in our last volume, page 203. Although our authors remark on this case that the pathological and anatomical facts leave no doubt

as to the poison, yet we adhere to the opinion then given, that *these* (there being no poison found) could not have been sufficient, had there been no external or collateral evidence.

Q. 5. Nothing very decisive is to be gained by administering the contents of the stomach to animals. If they be *forced* to swallow, some of it will get down into the lungs, and produce asphyxia—if mixed with their food, it may become neutralized or changed—and, after all, the contents of a morbid stomach might prove fatal to a small animal though no poison had been administered.

"In some instances such experiments may prove nothing, in others they may afford only equivocal results, but which may add something to the general weight of circumstantial evidence; while others, again, may furnish proofs so unquestionable, as to leave no doubt upon the subject; such was the case in the instance of *Michael Whiting*, who was convicted of administering corrosive sublimate to his brothers-in-law, when it appeared in evidence that a portion of the poisoned dumpling was given to a sow, who in consequence became sick, and remained ill for several days." 197.

With these general remarks on medical evidence in cases of poisoning, we must close this article, reserving for our next the classification and the particular history of each poison separately. We have now advanced into the very heart of our subject, and it now, of course, becomes both interesting and instructive, compared with what preceded.

VIII.

(RETROSPECTIVE.)

Observations on those Diseases of Females which are attended by Discharges. Illustrated by Copper Plates. By CHARLES MANSFIELD CLARKE, Esq. &c. Part I. on Mucous Discharges.

OUR readers are aware that in the second and third volume of the present series we gave an extended analytical review of the *second part* of Mr. Clarke's valuable work.* We have receiv-

* See Vol. II. p. 757—and Vol. III. p. 77.

ed numerous letters requesting that we would render our review more complete by reverting to the *first part*, and thus enable the holders of the present series to consult the whole, as far at least as a review can serve the purpose of reference. We have reason to know that our Journal circulates widely where the original work has never gone, and never can go—we deem it therefore an object of some consequence to diffuse valuable matter, whether recent or retrospective, among the more remote circles of medical society.*

The diseases of the sexual organs in females are certainly less known an dunderstood by practitioners, than any other class of complaints; though they are generally distressing, and often fatal in their consequences, to those who labour under them. It its in vain for the student or practitioner to search the systems of physic or surgery for information on this head; and it requires much time, labour and expense to explore the periodical works, and detached collections and transactions of societies, for scattered observations on the diseases in question. Mr. Clarke, therefore, has conferred a great benefit on the profession at large by the course of labours he has pursued, and is pursuing, in this novel field of inquiry.

The *anatomy* of the female organs of generation is, or ought to be, well known, and therefore Mr. C. swells not his work with what should be learnt in the dissecting room. The *discharges* from these parts, though all issuing from the os externum, spring originally from various sources, and are of different kinds. 1st. From the internal surface of the uterus and Fallopian tubes. 2nd. The inner membrane of the vagina. 6d. The lacunæ about the os externum. 4th. The mucous membrane of the urethra.

1. The secretions from the uterus are, α. The menstrual secretion. β. The secretion from the mucous membrane of the same. γ. The glandular secretion from the cervix of the uterus.

α. Every person knows, that the menstrual fluid is not an effusion of blood, but a *blood-coloured secretion* from the uterus. It may, however, be remarked, that when the determination of blood to the uterine vessels is increased beyond a certain point, the orifices of the vessels give way, and blood is mixed with the secreted fluid.

---

* This article was originally drawn up for one of the monthly numbers of the "Medico-Chirurgical Journal," by the present reviewer; but that journal fell, having only reached a circulation of 160 copies! It may, therefore, be said to be comparatively unknown to the profession—*Rev.*

"If in consequence of this determination, inflammation takes place, then coagulable lymph is thrown out, and the secretion is diminished till the lamina of coagulating lymph is separated."

β. The *mucous secretion* is permanent through life, except during pregnancy. It resembles the uncoagulated white of an egg, and consists, like mucous in other parts, of albumen and soda. Its use is simply that of lubrication.

γ. The *glandular secretion* from the cervix uteri contains less water than any other mucus in the body; is semitransparent; tenacious like birdlime, and only secreted during pregnancy, especially in the first months of utero-gestation; its use is supposed to be, to prevent the ovum from escaping in its early state.

2. *Vaginal secretion.*—This mucus is generally thinner than either of the former. It is generally in greater quantity where the rugæ of the vagina are most obliterated, as in women of lax fibre—who have borne children, and who are grown old. In the latter, the rugæ have entirely disappeared.

3. *Secretion from the lacunæ of the vestibulum.*—These openings pour out a glutinous mucus which has a peculiar odour.

4. *Secretion from mucous membrane of the urethra.*—This requires no explanation.

Chap. II. Profluvium Vaginale.

It is not of much consequence whether we denominate this discharge "γυναικεια λευκα" with Hippocrates—"Fluor muliebris" with Sydenham—"Fluor albus" with Mead—"Leucorrhœa" with Cullen, or "Sexual weakness" with Hamilton, provided we can discriminate its causes, and treat it successfully. There are objections, however, to most of the foregoing appellations, particularly those which characterize the disease as exclusively the offspring of *debility*. The author's is probably the best, and his definition is clear.

"A discharge of a fluid from the vagina, varying in its consistence, quantity, and colour; either produced by weakness of the constitution, or by a change in the structure, position, or actions of the neighbouring parts, such change being the effect of natural or morbid causes." 31.

It is important to inquire into these causes; if the discharge be the effect of mere weakness, tonics will be required; if from a tumour, its removal or support. If from inflammatory action, tonics will evidently be injurious before the topical determination is taken off. In many cases, it would be as injurious to

restrain vaginal discharges, as the natural salivation in a child during dentition. *(Vide our Reviews of Dr. Pary and Dr. John Clarke.)*

The discharges from the vagina may be classed as follow: viz. 1. Transparent mucous discharge. 2. White mucous ditto. 3. Watery discharge. 4. Purulent discharge. 5. Sanguineous discharge.

The *first* is gelatinous, nearly transparent, and coagulable. The *second* is opaque, perfectly white, resembling a mixture of starch and water without heat. The *third* resembles clear water, having no colour, and very little glutinous matter. Its quantity is generally much greater than that of any of the others. The *fourth* resembles pus secreted from the surface of an ulcer. The *fifth* is of course composed principally of blood. The form in which this last comes away is strictly to be attended to. When the quantity is considerable, and from large vessels, it is fluid. When the reverse, it coagulates, assuming the figure of the parts in which it lies. When it slowly spreads itself over the surface of a tumour, it comes away in coagulated circles, which may be seen by putting the coagula in water.

The white mucous and watery discharges are pathognomonic of some uterine diseases; the sanguineous belongs to none exclusively. Of all vaginal discharges, those of mucous are the most frequent, as they are produced by several complaints of the parts, and are also the effect of mere debility in weakly constitutions. 40.

Chap. III. This is occupied with a few general observations on sexual diseases, and on the necessity of examination *par vaginam*. The *latter* is strongly insisted on by Mr. C. though we much fear that "the general disinclination of practitioners to make an examination," will continue as long as female delicacy exists. We agree with our author, however, that the examination should be urged with firmness, whenever the case is doubtful in its nature.

"It is notorious, that many practitioners prescribe for complaints of these organs (and Mr. C. might have added many other organs) from a mere history of the symptoms given by the patient."

The fallacy of these descriptions demonstrate the futility and even injury arising from acting on such vague information.

Chap. IV. On Sympathies.

There is very little new matter in this Chapter. We shall notice some of the sexual organ sympathies.

I. Disordered function in the *stomach*, renders the breast

flaccid, and diminishes the size of the gland itself. There is an exception to this during pregnancy, for very obvious reasons. 2. A blow on the testicles produces sickness at stomach. Funetional derangement of the stomach renders the sexual passions dormant. 3. A diseased uterus produces sickness at stomach; this *last* causes *headach;* thus the uterus and head sympathize indirectly through the medium of the stomach. 4. The utero-gastric sympathy is the most common of all. In cancer uteri the stomach is always more or less affected with vomiting. When the uterus is ruptured, the *black vomit* comes on. 6. In amenorrhœa and dysmenorrhœa, the utero-gastric sympathy is equally remarkable. 7. The bladder and rectum sympathize with the uterus. 8. The lower extremities, in some cases, sympathize with the uterus, before and at the time of the menses. Pain in the lower limbs has been observed as a precursor of puerperal mania. 9. The *mind* is well known to sympathize strongly with the uterus. 10. The *brain* does the same as in furor uterinus, puerperal convulsions, and mania succeeding parturition.

Chap. V. Diseases attended by mucous Discharges from the Vagina.

Some of these consist of the displacement of parts; as 1. Procidentia uteri. 2. Procidentia vesicæ. 3. P. vaginæ. 4. Inversio uteri.

Procidentia uteri.—In a healthy state of the parts, the os uteri is about an inch from the inner membrane of the vagina which forms a fold or reflection on its anterior surface. In procidentia uteri, this distance is gradually increased, according to the descent. The procidentia may be met with in all degrees till the uterus projects through the external parts, dragging with it the vagina, and forming a large tumor between the thighs of the woman. In this tumour will be contained the bladder, a portion of the rectum, and of the small intestines. Months, or even years, may elapse during this descent; for when the uterus descends to the perinæum, it there often rests, as on a cushion, for some time, the violence of the symptoms abating. The vagina, which is, of course, pushed down inverted before the womb, loses its florid colour from exposure to the air, and also its peculiar sexual irritability. The anterior part of the abdomen, from being convex, becomes flat. When the uterus and its appendages *only* have fallen out of the external parts, and before the other viscera have fallen into the inverted vagina, the tumor has a lengthened form, bearing a rude resem-

blance to the male organ, and giving origin to popular imposition. It may be detected by the orifice of the uterus having its *longest* diameter crosswise. As the viscera descend, the tumor becomes of a globular form. In this situation the parts contained in the tumor are liable to constriction and inflammation.

The immediate causes are, relaxation of the broad and round ligaments above; want of tone in the vagina below. Debility of the system is a predisposing or remote cause; "but the most common cause of procidentia uteri is the long-continued erect posture of the body at an early period after delivery, and in some cases after abortion." 69. At this time the womb weighs eight or ten times more than when unimpregnated, and descends by its own gravity.

"The best practitioners direct their patients to remain in the recumbent posture upon a sofa, or on the outside of the bed; (where the advantages of horizontal posture and coolness are combined) till between the third and fourth weeks after delivery."

when the uterus shall have regained its former diminution, and the ligaments and vagina their tone. A violent cough during the puerperal confinement may also produce this distressing event.

The symptoms of procidentia arise some from dislocation of parts, others from sympathy. Pain in the back long precedes other symptoms; also pain in the groins, extending to the labia. There is a sense of fulness in the parts, and an increased discharge of transparent mucus from the vagina. The pain in the back is next described as a *dragging* pain, with a sense of bearing down. All these are relieved by the recumbent position. To these *strangury* is frequently added.

In procidentia uteri the symptoms arising from the utero-gastric sympathy are peculiarly distressing. The appetite fails; the stomach and bowels lose their tone; flatulence and borborigmi are troublesome; the spirits flag; employment becomes irksome, and life scarcely desirable.

The discharge varies much in quantity; but with this, and the impaired digestion, great debility arises. The menstrual fluid also is increased, and menorrhagia frequently attends. *Before* the external protrusion of the tumor, the discharge is greater than *after;* because the surface of the vagina ceases to secrete, when exposed permanently to the air. Hence, in the *former* state, the patient's debility is greater than in the *latter*. Patches of healthy looking ulceration soon attack the exposed vaginal surface, but seldom go deep; the os uteri is generally assailed by one of these.

Slight degrees of procidentia uteri can only be ascertained by anatomical knowledge and manual examination.

In this disease, a tumor hangs into the vagina, or out of the os externum. But every tumor is not a prolapsed uterus. The mark of discrimination is the os uteri at the lower part of the tumor.

The *recumbent* posture relieving the symptoms of incipient proc. uteri, it is evident, that the patient should be examined both in that and in the *erect* position, if we wish to avoid deception.

Treatment.—If nothing be done in the way of cure, the patient generally drags on a miserable existence, for a number of years, till destroyed by accident, or some other disease. Sometimes, though rarely, debility from the discharge, or inflammation of the contents of the tumor, puts an end to her sufferings. In its early stages, it is easily relieved, and the size of the support must be in proportion to the degree of dilatation of the vagina.

If, in this situation, conception should take place a confinement for some weeks after parturition, in the horizontal posture, will often enable the parts to regain their tone, so as to render subsequent artificial assistance unnecessary. Where pregnancy does not take place, we must have recourse to art.

The curative intentions are, to increase the strength of the relaxed parts, (both topically and through the constitution) and to support the tumor. *Topically*, by cold, and by astringents. Cold water ought to be applied to the female parts; to the belly, and to the back, by means of a sponge, three or four times a day, the water being cool from the spring, or rendered colder by neutral salts. Cold water is also to be thrown into the vagina by means of a syringe. These and the horizontal position will be sufficient in slight cases. In more important cases, *astringents* are necessary. The sulphate of zinc is more useful in relaxations of the orifices of the mucous glands, than in want of tone in muscular fibres; it is also too irritating. The same observation is applicable to nitrate of silver and sulphate of copper. The superac. plumbi is inefficacious. Solutions of alum are more powerful and less irritating than either of the foregoing. A *combination* of astringents will sometimes succeed better than any single one. Alum and zinzi sulph. form a good combination in these cases. Among the vegetable astringents may be pointed out: Thea viridis; petala rosæ rubræ; cortex quercus; cortex granati; gallæ.

In aid of topical applications, tonics must be administered internally; especially the bitter tonics, as gentian, &c. with bark and sulphuric acid.

The bowels are to be nicely regulated; the extremes of constipation and diarrhœa being equally injurious. Rhubarb or

senna is the best purgative in these cases, the resinous being irritating; the oily, nauseating; and the saline debilitating. The cold-bath, where the stomach is not much weakened, previously, will be found a valuable auxiliary. The salt-water bath is preferable to the fresh. Where the former cannot be procured, the author recommends the patient to be rubbed, on coming out of the bath, with a coarse towel, which has been wrung out of a solution of salt in water, and dried at the fire.

The recumbent posture on a hard mattress or sofa, is to be enjoined as much as possible in every case of proc. uteri, and the room of the patient kept cool.

"The diet should be nutritious, and a moderate quantity of wine may be allowed; but the stomach and intestines should never be loaded, lest the weight in the pelvis should keep up the complaint." 103.

Pessaries.—Those made of box wood are preferred to all others by Mr. Clarke; for the majority of cases, a circular or oval one answers sufficiently well. The circular pessary can only be used where the disease has not made much progress, and where the tone of the vagina is not much impaired.

"It will seldom be safe to introduce a circular pessary, the diameter of which exceeds too inches and a half; below this size, there can be no impropriety in using it; for it is certainly less liable to be displaced than the oval pessary. It should be large enough to keep the situation in which it is placed, else it will slip away; but it should not be so large as to distress the woman, or to injure the parts by its pressure."

Whatever may be the shape of the instrument employed as a support, it should be occasionally removed for the purpose of cleaning it; lest the secretions attached to it become acrimonious. Occasionally, also, the pessary should be changed for one of a smaller size.

The oval pessary rests with its longest diameter *across* the vagina, neither interfering with the rectum nor urinary passages. It is best adapted to those cases in which the tone of the vagina is so much diminished as to make a *large* support necessary. Its longest diameter should not exceed three inches and three-quarter. All pessaries should be introduced with care, and placed as high up in the vagina as possible.

The reduction of procidentia uteri, after its protrusion externally, must depend upon circumstances, and demands a prudent caution. Particular care should be taken to ascertain whether *inflammation* has, at any time, attacked the internal parts of the tumor; for, in this case, the attempt at reduction may tear open adhesions and produce fatal, or at

least dangerous consequences. When it is thought advisable, however, to replace the tumour, the bladder and rectum are to be first emptied, and the patient so placed that the pelvis may be much higher than the shoulders.

"The practitioner is then to apply his fingers and thumb to the lower part of the tumor, where the os uteri is situated, and by a gentle pressure this is to be carried up into the centre of the tumor itself. This done, the same pressure is to be continued, and the parts are to be returned into their proper place in the pelvis."

A pessary is then to be applied, and the patient should continue in the recumbent posture for several hours.

Chap. VIII. Procidentia Vesicæ.

This may happen at any period of life, but will be most likely to occur when the vagina is relaxed, as after child-birth. It is the posterior part of the bladder which descends; most of the patients seen by Mr. Clarke have laboured under violent coughs. It has some symptoms in common with proc. uteri; some peculiar to itself. The sense of bearing down is not to the same extent as in proc. uteri. The size of the tumor, and the uneasiness of the part, are increased when urine is contained in the bladder, and vice versâ. A mucous discharge sometimes attends. The *peculiar* symptom (not noticed by any former author) *is a pain referred to the navel, with a sense of tightness there.* This pain is greatest when the bladder is fullest, the uneasiness diminishing as the urine is evacuated, till it totally disappears. Purgatives give a *temporary*, and only a temporary relief to this symptom. The symptoms resulting from the utero-gastric sympathy, as in the former chapter, are here wanting. A distinctive mark also occurs on examination.

In procidentia uteri an opening is perceptible at the lower part of the tumor; this is not the case in procidentia vesicæ. If the *origin* of the tumor be traced, it will be felt lying between the os pubis before, and the uterus behind, and will be easily recognised as formed by a fluid. The cervix uteri is also altered in this disease. The anterior lip of the os uteri is dragged down and very much lengthened; so that in this altered state of the parts, the os uteri, instead of being felt in the centre of the pelvis, opens directly backwards, and lies in contact with the posterior part of the vagina.

"Procidentia vesicæ admits of remedy by the use of a support introduced into the vagina; and the hollow pessary, of a globular form before mentioned, is more serviceable than any other." 131.

Solutions of astringent substances should be frequently thrown into the vagina; particular care being taken to avoid

straining, as every exertion of this kind must affect the displaced part, and may force away the instrument. The bowels should be kept in a relaxed state, that the fæces may pass without any great exertion. Fruit and vegetables may therefore be indulged in; and when medicines are prescribed, the mildest are to be preferred. The urinary bladder should never be allowed to be full.

Chap. IX. Procidentia Vaginæ.

This term is meant to imply a relaxation of the posterior part of the vagina, so that this part is lower than the natural defined edge of the perinæum. From the habitual constipation of females, their false delicacy and sedentary lives, the lower part of the intestinal canal becomes so distended sometimes as to make the posterior part of the vagina approach nearer to the anterior part of the pelvis, and in this way the diameter of the vagina is much diminished. This extreme distension of the gut takes off its power of contraction, while the strength of the sphincter is increased by resistance: When, at length, by natural efforts or purgatives, the rectum is emptied, the pouch formed by it and the posterior part of the vagina continues so as to form procidentia vaginæ. It is sometimes produced by piles acting in the same manner as habitual costiveness. It produces no effect on the shape of the os uteri, and recedes a little, but never entirely, when the patient is in the horizontal position.

Very few symptoms are complained of, except some slight pain in the back, and a trifling discharge of transparent mucus.

In curing the disease the bowels are to be regulated, and the tone of the gut restored. A globular pessary gives support to the posterior part of the vagina and to the weakened rectum. Solutions of alum, in a decoction of oak bark, may be thrown into the vagina several times a day, or applied by means of a sponge. Cold water applied to the loins and to the external sexual parts, will also assist the recovery by imparting tone to the organs; but costiveness is to be most carefully guarded against. Castor oil, salts, senna, and such laxatives should be preferred, especially if there be piles, to the resinous class of purgatives.

Chap. X. Inversio Uteri.

This complaint is the inversion of the cavity of the uterus, so that the fundus comes through the os uteri: consequently, that part which was formerly the inside of a cavity, becomes

now the outside of a tumor, either in or projecting from the vagina. It is almost always the consequence of mismanagement of the placenta, and of course, in these times, a rare occurrence. Its immediate effects are hæmorrhage, faintness, and a sense of fulness in the vagina. When discovered early, it is easily reduced to its natural situation.

"This is to be effected by making pressure on the *lower part* only of the tumor, so as to make this part to be received into that above it: a continuance of the same pressing force will, in some cases, quickly reduce the tumor." 143.

If the placenta be adhering to the uterus, the latter should be reduced before any separation of the former be attempted.

This disease is occasionally met with in a chronic state, and accompanied by a mucous discharge. The symptoms resemble those of procidentia uteri. It is to be distinguished from polypus, by the os uteri encircling the latter; whereas, in inversion of the womb, the os uteri forms a part of the tumor itself. Moreover, the inverted uterus is sensible, the polypus devoid of feeling. From procidentia uteri it is distinguished by the want of an opening at the lower part; from procidentia vesicæ, by being much more resisting; by its permanence of size, and by the impossibility of finding any uterus behind it.

When it projects externally during the age of menstruation the catamenia will be observed coming from the whole surface of the *lower part* of the tumor. Whilst the inverted uterus remains in the vagina, the discharge, excepting at the catamenial periods, will be of a mucous kind. When it protrudes, the secretion is checked by exposure to the air; but ulceration is apt to succeed, and the discharge, of course, to become purulent.

Where the uterus has been long inverted, and lies in the vagina, it will not be advisable to recommend any thing but mild astringent injections thrown into the vagina three or four times a day; pessaries are useless, as there is no room for them.

When the inversion is in an extreme degree, the uterus hanging out of the body and dragging down with it the vagina, the discharge being great, and debility increasing, the patient's existence is either rendered miserable or cut off entirely, if the disease be left to itself. Here, if astringent and absorbent applications produce any abatement of the discharge, they should be persevered in, rather than risk an operation. But when the menstruating age is passed, and the patient's comfort is destroyed by the disease, the discharge threatening her life, it may be adviseable to recommend an operation which has been success-

ful, and from which the author knew a patient recover in her sixtieth year. How far the operation may be prudent during the period of menstruation, Mr. C. pretends not to decide. Ambrose Pare, with Mauriceau and another surgeon, cut away the womb of a woman 20 years of age, who survived; but died of pleurisy three months afterwards.

"A poor woman, 60 years of age, complained of a tumor which hung down from the external parts between her thighs, attended by a discharge of mucus and pus, so profuse in quantity as to make her exceedingly weak. Upon an examination of the tumor, it appeared to be an inverted uterus, the whole surface of which was in a state of ulceration. Above this tumor was the vagina, also inverted, having partial ulcerations upon it. The circumstances in the life of the patient obliged her to apply to the dispensary for relief, and her increasing weakness made her readily consent to an operation for the removal of the tumor, which was performed by Mr. Chevalier, surgeon to the Westminster General Dispensary. A ligature was applied round the contracted part of the tumor: that is, where the uterus ended and the vagina began. It was tightened daily, until about the eleventh or twelfth day, when the parts included in the ligature were absorbed, and the uterus fell off. During this time the patient complained of very little pain. Adhesions had taken place between the sides of the vagina, so as to prevent the exposure of the cavity of the abdomen, and the woman recovered." 152.

Chap. XI. On mucous Discharges produced by increased determination of blood to the sexual organs.

Hæmorrhoids.—This disease is a dilatation of the hæmorrhoidal veins, and is more common to females than males. A discharge of mucus from the vagina is a very common accompanyment to the piles; since the internal iliac artery supplies both the hæmorrhoidal and vaginal blood vessels; and it will be found difficult to restrain this discharge whilst the hæmorrhoidal tumors continue. The treatment of these tumors depends on the accompanying symptoms. If in a plethoric habit, and accompanied with sanguineous discharges, occasionally, it will not often be very prudent to suppress these discharges, lest some other part of the system should suffer. If the profuseness of the discharge, however, should induce debility, astringents and pressure may be safely employed. Every body knows what kind of *laxatives* (for *purgatives* are injurious) is useful in hæmorrhoids. Cold may be applied to the tumor by means of a sponge, or powdered ice may be applied between folds of linen. If the piles are external and painful, pressure may be made to return them within the sphincter, when the pain will be alleviated.

When the piles are removed, the mucous discharge often remains from the vagina. It is then to be treated by cold lotions and astringents, as before recommended.

Chap. XII. Ascarides in the Rectum.

As mucous discharges from the urethra in men, indicative of disease in the prostrate gland and testicle, are sometimes mistaken for, and trated as, a morbid state of the urethra, so mucous discharges from the vagina have been considered as originating in disease of that passage or of the uterus, when the irritation arising from ascarides in the rectum has produced all the symptoms. These worms are endowed with a very rapid motion, and have a pointed extremity with which they probably irritate the sides of the rectum, occasioning an insufferable itching, which is worse than pain to bear. This causes an increased determination of blood to the parts, and an increased secretion from the neighbouring mucous membranes. Ascarides will often travel across the perineum from the anus to the vagina, and there occasion a similar irritation. It is not always easy to discriminate these cases, since both mucous discharge and pruritus attend many other complaints requiring opposite modes of treatment.

In children, a mucous discharge from the vagina is not very unfrequently the effect of ascarides in the rectum, or irritation in the gums.

As the rectum is the seat of ascaris, or thread-worm, the complaint may be cured by clysters, partly by mechanically washing out the gut; partly by being obnoxious to the ascarides. Solutions of bitter substances in water, as camomile flower decoction, wormwood, or a mixture of aloes and milk, are useful in removing them. But a strong decoction of semen santonici is the most efficacious of all the injections in use; with this the rectum should be filled: But the quantity should not be so great as to produce much distention of the gut, as the latter will contract suddenly and expel the clyster, which acts with more certainty, if it remains for some time. This operation repeated for a few successive days will seldom fail to remove for a time, at least, the ascarides and the symptoms they produce.

Purgatives alone are of little service; but during the use of clysters, they are to be occasionally exhibited. Jalap, scammony, calomel are the best. The *symptomatic* discharge from the vagina will disappear with its cause.

Chap. XIII. Carcinoma Recti.

The subjects of this and the preceding chapter are introduced by Mr. C. because they are accompanied by mucous discharges from the vagina. In carcinoma recti, the capacity of the canal being diminished, the passage of the fæces through it is impeded, and painful. In consequence of this impediment in the rectum, the colon becomes greatly distended in some cases, and vast fæcal and other accumulations are occasionally found after death. The disease has often been mistaken for a stricture of the rectum, and much mischief done by attempts to deliate it by bougies. The pain attending the complaint is of the lancinating kind, and being referred to the region of the uterus, has led to a supposition of the disease being there. This error, however, is not of much consequence, as the principle of treatment is the same in both cases.

In car. recti the pain is increased greatly during the passage of the fæces. In stricture the pain will be, by no means, so acute. In car. recti acute pain is also occasionally felt when no endeavour is made to expel. In stricture, the pain is only felt at this time, or for a short time afterward. In carcinoma also, the constitution sympathizes with the parts more than in stricture. In this complaint, the hæmorrhoidal veins are apt to enlarge and to bleed; the latter circumstance retards the progress of the malady. In the latter stages of carcinoma recti, and probably in the earlier, the mesenteric glands are affected according to the testimonies of writers on morbid anatomy; this accounts for the rapid progress of emaciation. The *scirrhous* state, by proper management, may be kept stationary for a considerable time. When the parts become *cancerous*, the symptoms assume a formidable aspect, and the mucous discharge is converted into a purulent one. Occasionally in the ulcerated stage, a communication is formed between the rectum and vagina; the pain becomes more acute; the stomach sympathises much, and hectic fever sometimes supervenes.

Treatment.—This disease admits not of *cure*, because extirpation cannot be performed; palliation is all we can afford. Stimulating applications to promote absorption of such tumors are detrimental. So are adhesive plaisters, however innocent or sedative in their natures. Common soap plaister spead upon thin linen is the best. The parts should be defended from the cold, but not kept too warm. Motion in the parts should be avoided as much as possible. Leeches are serviceable, especially where the scirrhus is deep seated. When the skin ap-

pears on the stretch from the subjacent tumor, leeches are dangerous.

There is an intermediate stage between scirrhus and open cancer, which may be termed the *scabbing* stage, during which the patient may live many years, with less inconvenience and pain, than in the latter part of the scirrhous stage. When the cuticle bursts, an oozing of serous matter escapes, forming, first, a film, and afterwards a thick crust, covering even a portion of the contiguous sound surface. As long as the scab remains attached, the patient is safer than when it falls off. During the formation of this scab, the surface may be sprinkled with some light absorbent powder, as starch and oxide of zinc; the part should also be exposed to the air. All possible care is to be taken that this scab be not disturbed. These observations can only apply to carcinoma mammæ, and are a digression here; no such intermediate state is found in carcinoma of internal parts.

In treating carcinomatous tumours, every thing which can stimulate the parts, or increase the force of circulation in them, is to be carefully avoided. Where there are strength of constitution and local vascular action, blood should be taken from the region of the sacrum by the scarificators or leeches, and the operation repeated *pro re natâ*. Great attention should be paid to the bowels, which are to be kept in a soluble state by expressed oils, sulphur, manna, senna, or salts. Animal food, and fermented or distilled liquors are injurious. Sexual intercourse, from the vicinity of the rectum to the vagina, should be avoided. If the bladder become irritable, the semicupium is useful. Opium should be avoided as long as possible. The mucous discharge should not be restrained by astringents, for obvious reasons; *tepid* water may be thrown up the vagina frequently, and the external parts washed with the same.

The attention of the practitioner being called to the existence or organic disease, an examination should be insisted on. Perhaps the disease may be out of reach, either by the rectum or vagina. In such cases, if astringent injections produce an augmentation of pain, it will be prudent to act as if organic disease were known to exist. Such conduct can do no harm.

Carcinoma Uteri.

In the commencement of Carcinoma Recti and C. Uteri, the two diseases may be distinguished; but in the latter stages, the surrounding parts are drawn into disease in both cases, and both are equally fatal.

Scirrhous enlargements of the uterus will sometimes go to a great extent without ulceration. The hard tumor rising from the cervix uteri, and hard thickening of the cervix itself, both disposed to ulcerate, are the subjects of the present chapters.

Carcinoma uteri is much more common than C. recti, attacking principally middle-aged women, with symptoms not very violent at first, but gradully increasing. By C. uteri, Mr. Clarke means a tumor near to, or a thickening of, the cervix uteri, disposed to ulcerate. The disease at first attacks *only* the cervix; all other tumors, however hard in their texture, are of a different character, and have a different termination—they do not ulcerate. Real scirrhous tumors seldom become large. Two varieties of this disease are distinguishable at an early stage.---1st var. A firm tumor of a rounded form, springing from the surface of the cervix uteri, or imbedded in it, the other parts of the uterus (excepting a thickening of the parietes) being perfectly healthy. 2d var. Enlargement and induration of the whole cervix uteri, in structure carcinomatous. In the first variety, there will be some symptoms from mechanical pressure of the tumor on neighbouring parts. In the second variety, these will not take place; because the carcinomatous thickening will rarely acquire a sufficient size to produce them. In women of temperate habits, the disease may go on for a long time without occasioning much inconvenience. But in real carcinomatous tumours of the uterus, the progress is very rapid when any violence is offered them, as in labour. A sense of weight in the vagina is equivocal, as it is felt in all moveable tumours of the pelvis, when they become large. A mucous discharge is a very constant attendant, and checks the progress of the complaint, by unloading the vessels of the womb. This discharge is sometimes tinged with blood, at others, blood itself comes away in great quantities; during which, the tumor generally remains stationary. Profuse evacuations of this kind sometimes end in dropsy, which terminates in death. In C. uteri, if menstruation has not ceased, it becomes irregular and profuse. Dysury is of rare occurrence here; but strangury, from sympathy, is frequent, with mucous secretion from the bladder. The pain counterfeits that attending the passage of a stone from the kidney to the bladder, and is sometimes accompanied by urticaria, and cardialgia. If, in these cases, tonics, alkalies, bitters, aromatics, or particularly mercury, be given the original disease will probably be increased; hence the necessity of an examination, or minute inquiry, when the foregoing symptoms are observed.

The os uteri, in these cases, generally appears larger than

usual, so as to admit the point of the finger, which feels as if surrounded by a firm ring.

Treatment. If the system is plethoric, blood should be taken from the arm proportioned to the circumstances of the case. The same may be done from the hypogastrium, or loins, by leeches or cupping, repeated from time to time on any increase of uneasiness. Blood is more easily taken from the back than from the abdomen. Saline purgatives, largely diluted, should never be omitted. Phos. sodæ will often agree, when all others irritate the stomach. The secretion from the vagina should never be checked, but washed away occasionally by injections of *tepid* water, neither so hot as to increase the vascular action of the vessels; nor so cold as to stop the secretion: from 86° to 94°. Warm clothing, as determining the blood to the surface, is useful; and as lessening the chance of visceral inflammation from atmospheric changes. All local stimuli, sexual intercourse included, are improper. The antiphlogistic regimen, in all its trictness, to be pursued.

Urticaria being a frequent attendant, and as the *febrile* state of the system during this eruption *is detrimental* to the local affection, it should be paid attention to. The bowels should be emptied by a purgative of rhubarb, magnesia, compound spirit of ammonia, and mint water, succeeded by a light bitter infusion thrice a day; to which may be added some carbonate of soda, potash, or aromatic water. Soda water for common drink. Here vegetables disagree, and small quantities of light animal food may be allowed.

If discharges of blood be moderate, they should not be checked; if profuse, the recumbent posture, cold, and local astringents are proper. Preparations of iron are injurious, and always increase the pain and discharge. No cure can, of course, be expected.

Chap. XVI. Polypus of the Uterus.

Polypus Uteri is an insensible tumour attached to the internal part of this viscus by a small neck. These tumors are very various in respect to size, shape, hardness, &c. The neck of the tumor, surrounded by the os uteri, is contracted, while its base dilates in the yielding vagina. The soft polypus is by no means so common as the hard kind.

Symptoms. First, a mucous discharge, in considerable quantity, tinged occasionally with blood, and often inducing great debility before the nature of the disease is suspected. Instead of mucus, coagula of blood are sometimes voided; at others,

pieces of a ring like form, from obvious causes. Great fœtor sometimes takes place from the blood remaining in the vagina, inducing a belief that cancer exists; which opinion is strengthened by the sickness of stomach attending the disease. Sense of pressure and bearing down, with pain in the back and groin, are felt in this disease. If the tumor be large, it may press both on the rectum and meatus urinarius obstructing the evacuation of fæces and urine; but such instances are uncommon. Thus gastric irritability, increased secretion of mucus, hæmorrhage, and derangement of the digestive powers, all tend to produce great debility in this complaint. But the true character of the disease can only be ascertained by examination. The only diseases for which polypus may be mistaken, are inversio uteri, and the cauliflower excrescence. The history of the case, and the *insensibility* will distinguish it from the former. The irregularity of surface, origination from the substance of the os uteri, broad base, and watery discharge, attending cauliflower excrescence, will distinguish it from polypus. There is, however, a disease, consisting of a tumor which is insensible, unequal and ragged in surface, coming down from the cavity of the womb into the vagina, surrounded by the os uteri, but without a narrow neck, which may be taken for polypus. Upon an accurate examination, this tumor will be found to be made up of a number of irregular portions which lie parallel with each other. All the symptoms of polypus teri attend this complaint, and it ultimately proves fatal. M. Herbiniaux, a surgeon at Brussels, has given a good description of this tumor.

Polypus uteri is only to be cured by an operation, which is the application of a ligature round its neck. The prognostic is, in general, favourable.

Fleshy Tubercle of the Uterus.

This is a hard, whitish tumour, situated sometimes upon the surface of the uterus, between the muscular and peritoneal coat, sometimes projecting into the cavity of the uterus, and occasionally imbedded in its substance. There is sometimes more than one tumor; their forms various; commonly spherical or hemispherical.—When projecting into the cavity of the uterus, their surface is smooth.—When on the exterior of that organ, they are otherwise. These tumors are sometimes not larger than a pea; sometimes they weigh several pounds, and occupy a great part of the abdominal cavity. The fleshy tubercle has been mistaken for ovarian dropsy and pregnancy. The first is an error of little importance, as the symptoms in both are me-

chanical, and do not interfere with life, unless by pressing on contiguous parts. The fleshy tubercle of the uterus is much more resisting than the cyst of an ovarian dropsy. In the latter, fluctuation may be felt by striking the abdomen gently with the hand. From pregnancy, it is sure to be distinguished, after a few months, by the motion of the child in the former. It is not an uncommon disease—occurs in the married and unmarried, but rarely before the twentieth year. It has no disposition to ulcerate, or suppurate; but inflammation is apt to occur in the neighbouring parts. Nothing is known respecting its cause.

Symptoms. An increased discharge of transparent mucus sometimes attends. The earlier symptoms are frequent disposition to make water, and to empty the rectum: retroversio uteri, and suppression of urine may occur in this disease. Cramp in one or both legs; œdema of one or both feet. When the tumor becomes large, there may be difficulty of passing the fæces, and total inability of emptying the bladder; bearing down, not relieved by the horizontal posture. On examination, a large, hard, resisting tumour will be felt; but the os uteri will have undergone no change—will not gape as in carcinoma; nor will pain be complained of when the tumor is pressed upon. The constitution is seldom affected; and when it is so, it is merely from pressure. It is totally uninfluenced by medicines internally or externally applied. The occasional symptoms only can be attended to with any advantage.

The XVIIIth. On verrucæ, or warty tumors arising from the vestibulum, contains nothing very new or very interesting.

The two last Chapters in this work, XXI. and XXII. are interesting.—Viz. On the transparent mucous discharge from the vagina, unaccompanied by any organic derangement of the sexual organs.

There are two distinct and dissimilar classes of these discharges:—one arising from increased action of the vessels of the parts; the other from the debility, in which the former, indeed, may end. Those discharges are, however, much more frequently from debility than increased action.

From increased Action.

Women of naturally plethoric habits, possessing great strength of constitution, are more liable to this than weaker women. Females, who, in the middle of life, indulge much in the pleasures of the table, especially in wine or spirits—whose habits

of life are sedentary, and who take little exercise in the open air, are liable to become suddenly corpulent, and form too much blood, as may be seen by the pulse and superficial veins. These women are in reality weak, though apparently strong—they are easily fatigued, and devoid of energy. In many of these, a slow enlargement of the liver takes place, as may be ascertained by the hand, while little bile is secreted, and the stools are clayey or white, with much fœtor of putrescency. Constipation and obesity increase; while a vaginal discharge takes place, and the menstrual flow is augmented. Upon inquiry, giddiness and somnolency will be complained of, with headach, perhaps indistinct vision, or the appearance of sparks before the eyes. Many years may elapse in this way, without much apprehension of danger, the symptoms being occasionally relieved by a spontaneous hæmorrhage from the nose, or other natural or artificial evacuation; when, all at once, the woman shall be attacked with apoplexy, or some great internal hæmorrhage that quickly terminates the scene! Or she may gradually become dropsical, and die that way. The mucous discharge is, in these cases, probably an effort of Nature to relieve the vascular plethora of the system; and hence, when injudiciously checked, without substituting other evacuations, the violence of the symptoms is increased.

Mr. C. has examined the bodies of females dying during the prevalence of these symptoms, and has found the uterus somewhat, but not much enlarged; while the liver was often increased to twice its natural size, with an uniform density and yellowness, but no other particular morbid alteration of structure.

"The objects in the treatment of this case are, to unload the vessels, by removing at once a large quantity of blood; to prevent its too quick formation in future; to restore, if possible, the liver to a healthy state: afterwards to moderate the vaginal discharge, or to diminish the inconveniences attending its continuance; and, lastly, to lay down proper rules for the patient's conduct, in order to prevent a return of the symptoms."

To obviate local fulness, if such be present, cupping glasses between the shoulders; to the lower part of the abdomen; to the loins; to the region of the liver. If no such local symptoms be distinguishable, venesection; saline purgatives in small doses thrice a day; antiphlogistic regimen. Exercise is to be gradually increased; fermented and spiritous liquors to be prohibited; and if their use had been long continued, with gastric

debility, spices, aromatic seeds, and ammonia, may supersede them. Until the plethoric state of the system be reduced, tepid water *alone* is to be injected into the vagina; afterwards weak solutions of the sulphate of zinc. Local increased action of the vessels, as frequent sexual intercourse, may give rise to the disorder, and is to be obviated if possible. After local or specific inflammation of the vagina, with purulent secretion, leucorrhœa sometimes succeeds, and is very difficult of cure.

In the treatment of transparent mucous discharges from the vagina, produced by increased action of the vessels, local remedies will be principally required, consisting of abstractions of blood by leeches, scarificators to the lower parts of the abdomen, or to the back, repeated when necessary. The bowels to be kept open by mild purgatives. The food to be simple and light, avoiding spices and liquors. Sexual intercourse to be prohibited. Cold solutions to the parts, (liq. plumbi acet. c.) and afterwards, when the secretion continues from relaxation of the membranes, astringent washes.

The last chapter in the work, on transparent mucous Discharge depending upon Debility, is short, but interesting. We shall give it nearly in the words of the author.

"That women, whose vagina has lost its tone, become liable to this disease, has been before remarked in that part of this work where some general observations upon the nature of the vaginal discharge were made. Whatever tends to produce debility of the system, may lay the foundation of this complaint; such as long diseases, profuse hæmorrhages, or anxiety of mind.

"Women who live in a moist atmosphere, who keep bad hours, who spend much of their time in bed, or who inhabit hot rooms, (being generally weak women, and having a relaxed vagina,) will be apt to be affected by the complaint.

"It sometimes arises in women who suckle their children for too long a time, and it will often subside spontaneously upon the child being weaned.

"The quantity of discharge, and also its consistence, is very various in different cases. It sometimes comes away in a liquid form; at other times it is ropy.

"A pain in the back attends many cases of the disease. This symptom is, however, frequently found where great debility of the system is present.

"The continued drain from the system increases the original weakness; and the quantity of blood remaining is by degrees so much reduced, that the surface of the body becomes every day paler, till at length the cutaneous vessels are completely emptied of their contents; and at this time the skin assumes an appearance resembling that of a dead body. The colour of the sebaceous glands of the skin is evident through the cuticle; so that to the paleness of the skin is superadded an appearance of yellowness, which is not the effect of absorption of

bile, for the urine will be found clear and colourless, and the tunic sclerotica of the eye will retain its pearl-coloured appearance. The exact balance between the secreting arteries and the absorbents being destroyed, the cellular membrane becomes filled with fluid, and the integuments acquire a doughy look and feel. This fluid effused, pervades the cells of the cellular membrane throughout the body; the legs and feet swell towards night, and in the morning this swelling subsides, and the face becomes puffed; a shortness of breathing succeeds, which is increased by the horizontal posture, and is rendered most distressing when the patient is going up an ascent, or endeavours to read aloud. Violent palpitations of the heart occasionally give the woman great uneasiness; and this symptom sometimes increases to so considerable a degree, that the action of the heart may be heard by a by-stander. During the continuance of these palpitations, the patient becomes very faint, and often considers herself to be dying.

"The circulation in the extremities is very languid, and the hands and feet are almost always cold; the pulse is feeble, sometimes very quick. The digestive organs not only partake of the general debility, but have more than their proportion of weakness. The appetite for food is lost; the power of digestion is diminished; and, from the spontaneous changes which the food undergoes in its passage through the stomach and intestines, the patient becomes much annoyed by flatulence.

"Bile is secreted very irregularly, and sometimes this secretion is suspended. Costiveness is a general attendant on this state of disease. In the farther progress of the case, hectic fever comes on, the difficulty of breathing becomes more extreme, and the patient dies with the symptoms of water in the chest. Although these symptoms are of the most formidable kind, and threaten the life of the patient, they frequently yield to the employment of proper means, which must be directed with skill, pursued with energy, and continued with patience.

"The first care of the practitioner should be to remove, if possible, the causes of the disease. If the patient has been living in a moist unhealthy situation, she should be removed to one which is more dry and salubrious: without attention to this very important circumstance, all the resources of art will be useless.

"It has been stated, upon good authority, that the disease is frequent in Holland, and that it is epidemic in wet autumns. The author has repeatedly seen the complaint attended by the worst symptoms in women who live in damp situations, and in the crowded parts of London, in whom they have quickly disappeared upon a removal to a more healthy spot. The woman should not be permitted to breath a confined air. When the weather permits, she should go out; and the apartments in which she lives and sleeps should be large and well ventilated. Her habits of life should be regular. She should rise betimes in the morning, and retire to rest early in the evening. If she is too weak to sit up the whole of the day, a sofa is to be preferred to a bed.

"Persons who are very weak are much disposed to sleep. This prevents that exhaustion of the powers of the frame which would otherwise take place. Exercise, proportioned to the strength and to the means of the patient, should be recommended: when the weather permits, it should be taken in the open air. Exercise in an easy carriage is preferable to walking, and that taken on horseback to both. The

chamber-horse, or elastic plank, may be employed when exercise out of doors cannot be used.

"The food should be of the lightest kind, such as animal broths and jellies, vegetable jellies, bread properly fermented and well baked. It will be better that the patient should not eat solid animal food until the powers of the stomach are in some degree restored, lest fever should be excited by it. When the powers of the digestive organs become more vigorous, recourse may be had to animal food; which should be taken in small quantities, once only in the twenty-four hours, and in the middle of the day. Tender meats, and such as will not be likely to disagree with the stomach, should be selected. Wine, either pure or mixed with water, as may best suit the palate or the stomach, may be allowed in moderate quantities. All wines which have not undergone a complete fermentation will give occasion to flatulency, and are therefore improper.

"The medicinal treatment is to consist in the employment of means to invigorate the stomach and the constitution, and to restrain the vaginal discharge, which, as long as it continues, must increase the debility.

"If steel and the other metallic tonics are exhibited in the first instance, they will either be rejected, or they will increase the frequency of the pulse and the general heat of the body; and thus, by wearing out its powers, exhaust that strength which they were intended to augment.

"Instead of this plan, the patient should take, two or three times in the day, a draught of infusion of columba, or some other light bitter, with the addition of a few grains of carbonate of ammonia.

"At the end of two or three weeks, it is to be expected that the stomach will have received an increase of strength; and then, instead of the volatile alkali, fifteen or twenty drops of tincture of muriate of iron, or of ammoniated iron, may be added to the draught.

"Sulphuric acid is a useful tonic in these cases, and may be given in an infusion or decoction of bark.

"A mixture of myrrh, steel, and alkali, with some aromatic water in some cases where the stomach will bear it, becomes a valuable remedy.

"Under a continuance of these or similar means, the patient's health will be gradually re-established.

"Care is to be taken to regulate the functions of the bowels until they have acquired sufficient strength to carry down their contents without assistance: for this purpose, the pil. ex aloë c. myrrh. or the pil. gamb. comp. of the last Pharmacopœia, are well enough adapted.

"It is advantageous in some cases, where the biliary secretion is sluggish, to exhibit occasionally a few grains of pil. hydr. at bed-time; and in the morning following a rhubarb draught. The strengthening remedies will produce a better effect when this is attended to than when it is omitted.

"A solution of sulphate of zinc or of alum may be thrown into the vagina by a syringe, three or four times a day; and if these should not be sufficiently powerful, such injections must be employed as possess a greater degree of astringency.

"Cold sea-bathing will be found very useful, when no symptoms are present forbidding it; the system, however, should have first rallied a little. Those patients who cannot bear the shock of a cold bath, will

occasionally derive great advantage from a shower bath. The temperature of the water may be raised to sixty or seventy degrees, if the cold water does not agree with the patient."

We have thus presented our readers with a clear view and extended analysis of Mr. Clarke's volume. The matter speaks for itself, and the execution is highly creditable to the talents of our author.

IX.

Lectures on the Operative Surgery of the Eye. By J. G. Guthrie, Esq. &c. &c.

[Concluded from page 448.]

Our readers are aware that, in our last number, we concluded the subjects of Entropium and Ectropium so fully treated of in Mr. Guthrie's valuable lectures on the Operative Surgery of the Eye. We now proceed to notice the other topics of the volume, in the order in which they stand.

1. *Cohesion of the Edges of the Eyelids, or of the inner Part of the Lid to the Ball of the Eye.* These two are generally found combined, and the complaint is of a very intractable nature. The structure and vital properties of the conjunctiva, as a sero-mucous membrane, do not admit of adhesion taking place between its surfaces whilst they remain entire, whatever degree of inflammation may be excited on them.

"In consonance with this opinion, we never find that union of these parts occurs in any of the inflammations arising from other than mechanical causes, unless ulceration has previously taken place; a provision which Nature has made for the preservation of vision, which would otherwise be lost in every severe case of inflammation. The causes, then, of these adhesions are generally to be found in the application of such substances as abrade or destroy the conjunctiva covering both surfaces; such as melted lead or other metals, the mineral acids, quick lime, and scalding water; this also occurs from burns, and from wounds affecting both surfaces, Either of the substances enume-

rated getting between the eye-ball and the lid, certainly abrades the surfaces of both, whilst it generally gives rise to ulceration, and often to sloughing of the cornea, when the termination is usally fatal to the eye. In all these cases the inflammation which takes place is severe, and from the cornea being implicated, the intolerance of light is so great as to prevent the patient, when neglected or improperly treated, from attempting to open the eye; and the abraded or ulcerated surfaces are kept for an indefinite time opposed to each other. At a period which cannot be precisely indicated, means of union are offered by the inner surface of the eyelid; and, if I may use the expression, are accepted by the surface of the eye-ball; for I am of opinion that the whole of the matter supplied to affect the union is furnished from the vessels of the lid; which hypothesis seems to be confirmed by an examination of the substance connecting these parts in the slighter and relievable cases, which is always found to partake of the nature of the lid, and perhaps of the conjunctiva of the eye-ball, but not of the cornea; and which may account for the fact that I have never met with any difficulty in effecting a permanent separation of such partial adhesions from the cornea, whilst it is next to impossible to do so by any means we are at present acquainted with, when union has taken place between the conjunctiva lining the lid and that covering the sclerotica alone." 90.

When the attachment takes place by one or more narrow slips of communication, an amelioration may frequently be effected by the simple operation of dividing the attachment close to the eye, and cutting it away from the lid; but if it arise from the angle of reflection, it will acquire repetition, great care in the treatment, and still will not be completely successful.

"I have already," says Mr. Guthrie, "expressed my opinion as to the impropriety of interfering with these adhesions, when they are broad, and proceed from the reflection of the conjunctiva from the eyelid to the eyeball; when this union is, however, narrow, and the adhesion has become elongated, so as to assume the form of a band or bands, having distinct formations and attachments, they may be cut away with partial success, but will seldom be completely removed; and this partial success will only be attained after two or more operations, which are to be accomplished in the following manner: the eyelid, if the lower one, and such adhesions are usually formed in it, is to be drawn outwards, so as to give a full view of the membranous band attaching the parts to each other, which is then to be divided close to the cornea, and down to the reflection of the conjunctiva, by one snip of a pair of scissors. The eyelid being now completely drawn outwards, the portion of the membrane which remains attached to the conjunctiva is to be carefully raised with a forceps, and cut away in like manner with a pair of scissors. In order to prevent adhesion, the cut surfaces of the eyelid should be lightly touched with the sulphate of copper, and the patient should frequently roll the eye and move the lid for the first twenty-four hours, during which time it may be washed with the

decoctum papaveris albi. The attention must now be directed to the healing of the part next the cornea, and the edge of the lid, whilst it should be prevented as much as possible at the angle between the eye-ball and eyelid; in other words the wound should be induced to heal downwards rather than upwards. There is never any difficulty in clearing the cornea; but it is very much the reverse with the conjunctiva beneath it; for, although the cicatrization may be nearly accomplished, with little appearance of adhesion, still, on its becoming complete, a contraction takes place, which in a great degree restores the appearance of the previous attachment. By a repetition of the operation, some further advantage may be gained; but I believe I may say, the parts are never restored to their natural state, although the deformity and inconvenience may be almost entirely removed." 95.

On the section on "Wounds of the Eyelids," we need not dwell. They are neither dangerous nor difficult of cure. They are to be treated in the same manner as wounds in general. When the lachrymal canal is divided, Mr. Guthrie doubts very much if union ever takes place in such a manner as to render it pervious. Wounds and injuries of the forehead are often productive of deformity, and sometimes of blindness—they consequently demand considerable attention.

"Vision is sometimes affected by these wounds in a manner that would appear unaccountable if we were not acquainted with the subtlety of nervous sympathy. The relation of the numerous cases I have met with of this nature would rather gratify curiosity than answer any useful purpose—from the wind of a cannon ball (as it is said) to the prick of the point of a sword. It appears to me, however, from a consideration of these cases, that defective vision, or a total deprivation of sight, rarely takes place, unless the injury immediately affects a branch of a nerve, of such magnitude as to be usually demonstrated in a common anatomical dissection. These wounds or injuries are either situated, for the most part, on the forehead towards the nose, implicating the supra-orbital branch, and the nasal branch of the first division of the fifth pair of nerves, or immediately below the eye, affecting the infra-orbital branch of the second division of the same nerve. It is not necessary that any injury should have been inflicted on the eye itself, and the absence of all appearance of it at the moment, independently of the patient's own knowledge on the subject, sufficiently attests the fact, that the amaurotic affection is the result of sympathy, and not of direct injury to the eye. In some instances, the deprivation of sight would appear to be simultaneous with the receipt of the blow; in others it comes on more slowly, during the process of healing, and is seldom complete; whilst in a third set, it only commences after the cicatrization is fully accomplished." 100.

When the deprivation of sight is instantaneous, our author suspects, notwithstanding many opinions to the contrary, that the eye itself has suffered from the general concussion. Beer and Weller place great reliance on the appearance of the

iris as indicative of the nature of the derangement—that is, whether it has arisen from sympathy with the supra-orbital nerve, or from a direct affection of the eye. They consider a contracted pupil to indicate concussion of the eye—a dilated pupil, a laceration of the supra-orbitary nerve—inferences which do not accord with Mr. Guthrie's experience, inasmuch as the appearance of the eye has been more natural in the amaurosis from sympathy than from direct injury.

When complete blindness takes place as the immediate consequence of a blow on the eye or the forehead, and continues without amendment for several days, it has hitherto, Mr. Guthrie believes, been found incurable. When the defect comes on slowly some days after the receipt of the injury, the case is less desperate, though a cure is equally uncertain. The complaint may be arrested, but is seldom entirely removed. If internal inflammation, acute or chronic, supervene, there is no hope of the affected eye, and great danger of the other also.

"When the injury committed on the forehead is sufficiently severe to affect the brain as well as the supra-orbitary nerve, it may not only give rise to symptoms indicating inflammation of the brain and its consequences, but to a derangement of the nervous system of the eyes which may show itself in an amaurotic affection of both. I consider an amaurosis from injury to be much on a par with cataract from injury, and often occurring without affecting the other eye, whilst both diseases, when caused by internal derangement, seldom exist long alone.

"When the defective vision follows a wound on the forehead, the only hope of relief that we are at present acquainted with lies in a free incision made down to the bone in the direction of the original wound; and even of the efficacy of this I am sorry I cannot offer testimony from my own practice; having failed in every case in which I tried it." 103.

In all cases of wounds of the forehead, accompanied or followed by defect of vision, or amaurosis, we should endeavour to ascertain whether it has been caused through nervous sympathy, injury of the eye, or concussion of the head. It will also be useful to ascertain whether the amaurosis, subsequent to the commencing cicatrization, be a consequence of nervous sympathy alone, or of a low irregular vascular action going on in the internal part of the eye, which is to be recognized by its symptoms and appearances; while the pure nervous derangement is only discoverable by its effect in destroying vision.

"The object of this particular inquiry is to regulate the practice to be followed, and particularly in relation to that recommended by Beer;

for every wound of the forehead implicating the fifth pair of nerves does not cause amaurosis; whilst many cases of defective vision, accompanied by wounds, are dependent on other injury than that committed on the forehead.

"According to my observation, the eye, when amaurotic through injury of the supra-orbitary nerve, often shows little or no derangement of structure, the iris preserves more or less of its natural motions, and the information we acquire, is from the patient's declaration of his loss of sight, which is generally unaccompanied by pain. When amaurosis is the consequence of a direct injury to the eye itself, there are, for the most part, positive marks of the injury having been inflicted upon it, which cannot be mistaken; such as extravasations in, or lacerations of some of the internal parts. The motions of the iris are greatly impaired, the pupil is dilated, the pain is considerable. When the amaurosis is the consequence of concussion or of derangement within the head, such as extravasation of blood or deposition of matter, the eye of the side opposed to the injury is most frequently affected, when both are not equally implicated, and which state will be easily recognized by those conversant with injuries of the head, by whom alone they should be treated.

"Wounds of the forehead should be managed according to the principles of surgery applicable to wounds of the head in general. If loss of sight should have immediately followed the injury, an incision should be made down to the bone at the part affected, so as to render it a clean incised wound, whether it were before a contused or a lacerated one, which should then be dressed simply, and suppuration encouraged in a moderate degree, by the application of a poultice. If the amaurosis should only appear after cicatrization has commenced, the same kind of incision should be made on that side of the wound nearest the supra-orbitary foramen. If these should be found of no avail after a few days, the operation of dividing the nerve just above where it passes out from the orbit, should be attempted, as a last resource; and those who consider that this operatien fulfils the intention better than dividing the branches, which are irritated at the part itself, will have recourse to it at once in the manner recommended by Beer, which will certainly be preferable when cicatrization has nearly or completely taken place, and a new wound must in any manner be made. When the injury has been inflicted upon the eye, and the amaurosis is complete, or commences slowly, or after a few hours begins to subside, a division of this branch of the fifth pair of nerves must be useless, and may do mischief. In this case, independently of any considerations which may arise from injury committed within the head, recourse may be had to general bleeding; cupping on the temple of the affected side; a regular drain by the application of four or six leeches near the eye, every day, or second day; purgatives; abstinence; and, if applications are made to the eye, I consider the decoctum papaveris albi, used warm, the best local remedy. At a subsequent period, stimulants, galvanism or electricity, may be useful, if a partial restoration of vision be effected. If signs of active inflammation take place, the depletory means must keep pace with them; but when the low irregular action occurs, to which I have alluded, dependence must be placed on local bleeding, blisters behind the ear, a caustic issue above it, and mercury given in such manner as to affect the mouth quickly." 105.

When amaurosis is followed by inflammation, the matter is much more serious than when the complaint is apparently nervous—and that because the other eye is so likely to be attacked by internal inflammation. Our author has two cases of this kind under his care at the present time. In one, the wife knocked her husband down with a frying pan, rupturing the iris by the blow. In the other case the husband knocked the wife down with a pair of bellows, rupturing both cornea and iris. Low inflammation has, with amaurotic amblyopia, taken place, in both instances, in the originally unaffected eye. The man will probably lose both his eyes—the woman is likely to be more fortunate in having one eye left with sight.

"The pain experienced in affections of this nature is not so much felt in the eye as it is in the different branches of the supra-orbitary nerve, near the nose over the forehead, and round the side and even back of the head, showing that the sympathy is as complete between the eye and the nerve, when the former is suffering from internal inflammation, as between the nerve and the eye, when the affection of the nerve is the cause of amaurosis." 106.

Mr. Guthrie has another case under his care, of a curious and mixed character. A gentleman was accidentally shot in the face by his companion, seven of the shot striking the forehead and side of the head, while one was supposed to have entered the orbit by the side of the eye. Complete blindness was the immediate consequence, from which he gradually recovered in part, but not so as to distinguish a letter in an octavo page. The small holes made by the shot soon healed. In this state he came under Mr. Guthrie's care, the eye being, apparently, as sound as the other, without pain, and attended with no other inconvenience than from the pressure of the hat on the places where the shot had entered. He considered his vision to be more defective at intervals, from a black cloud (as he expressed it) passing over the eye, and descending from the outer corner of it. This cloud, in the course of treatment, diminished, so as not to come over the eye, except after reading. In this case Mr. Guthrie removed the shot that caused uneasiness; drew blood from the temples by cupping, and had recourse to purgatives and stimulants, assisted by alteratives and abstinence. There is every appearance that the cure will be complete.

The next section is on tumours of various descriptions affecting the eyelids—hordeolum—chalazion, grando, &c.

On hordeolum, or stye, we need not dwell. When the inflammation which gives rise to this affection does not proceed to suppuration, the swelling soon degenerates into a hardened tumour, which has obtained the appellations of chalazion, grando, lythiasis, tophus, &c. It is commonly a small fleshy tumour, which is sometimes very troublesome, occasionally dangerous, and generally requires an operation for its cure.

"The removal of this swelling may be occasionally effected when it is small, by gentle friction with any smooth solid substance, such as on old woman's gold ring, which has long obtained credit for this service, and sometimes by stimulant applications, which, whilst they induce inflammation and suppuration, occasionally bring on unhealthy action, and give rise to sores of a malignant character. When a chalazion becomes troublesome from its size, it should be removed by making an incision through the skin over it, in the direction of the eyelid, of sufficient extent to expose the tumour, which should then be raised with a hook, and cut off with the scissors, care being taken not to injure the cartilage, or the edge of the lid; and if a portion should adhere to either, it must be left, and, and will be destroyed by the suppuration which will ensue. Escharotics generally do mischief, and ought, therefore, to be avoided, as capable of giving rise to cancerous ulceration in persons of a cachectic habit. Professor Beer seems to consider this as a common occurrence in Germany; but in this country, where the practice of surgery is in general much better understood, and relief is speedily obtained, such a change is very rarely observed. When it does take place, it will, I suspect, be only symptomatic of a cancerous diathesis, which has already shown itself by local derangement in those parts most liable to it, and the appearances of its commencement on the eyelid can neither be mistaken nor cured." 110.*

The most simple kind of tumour forms under the skin of the lid, elevates the part, and causes it to look like a little flat wart. An incision is to be made across the centre of the little tumour to its middle—the contents are then to be squeezed out by pressure made at the base by the nails of the two thumbs, and the cure is generally completed in 24 hours.

When these tumours are situated under the orbicularis muscle, they may still be removed in the same manner; but if they adhere to the tarsal cartilage, the eyelid should be everted, when the projection of the tumour will be seen through it, into which an incision should be made, and the contents are to be pressed out in the same manner as beforementioned.

This method of removing tumours through an opening in the cartilage is never attended with any inconvenience, and ought always to to be adopted when the appearance of the inside of the eyelid is

changed from its natural colour to a semitransparent yellowishness, showing the firm attachment of the tumour to the cartilage, even if it do not indicate its partial removal by absorption. The head being firmly held, the eyelid is to be everted and retained in that situation by the fore-finger of the left hand; the surgeon makes an incision a little longer than the projection of the tumour, with a small sharp-pointed knife, the hand being unsupported in order to avoid an accident from the starting of the patient. When the cartilage is divided, the tumour appears, and a touch of the knife discloses its nature, whether fleshy, fluid, or otherwise. If fluid, the contents escape, and the operation is completed by introducing the blunt end of a common probe into the sac, and moving it about in every direction, so as to empty it completely, and at the same time to excite inflammation. This should be repeated every day for three, four, or five days, at the end of which time the sac will have become consolidated, and the opening in the cartilage nearly closed. The little remaining tumour or hardness soon disappears, never to return in the same place from the same cause." 114.

We shall here introduce an extract relative to a different kind of tumour.

"Whilst the last-described tumours affect for the most part the immediate vicinity of the tarsal cartilages of both lids, the atheromatous ones are usually situated at some distance from them, although more generally in the upper lid: they occur equally without pain, but feel rounder, more elastic, and deeper seated; they roll more readily under the finger, and seldom adhere to the skin so as to cause inflammation, unless of long standing, or when they have been irritated. If a small opening be made into one of these tumours, and pressure is applied, the contents are readily made to pass out in the shape of a tape-worm, and resembling the medullary matter of the brain. It is, however, secreted very rapidly, not only by the whole sac, but even by a part of it, which renders the removal of the whole of it necessary to prevent a recurrence of the complaint. If the tumour be small, an incision should be made over it, extending beyond it each way, and the skin separated so as to allow the tumour to rise on pressure. The sac, which is usually rather thick, should now be raised with a hook and carefully dissected out. If the tumour be large, an incision should be made directly into it, so as to allow the contents to escape; or if the operator should have fairly divided it, unconscious of its nature, the two sides of the sac may be laid hold of with the forceps and dissected out, which will be assisted by making pressure below the tumour, so as to press the inside of the sac upwards and outwards: if any portion of it should remain, it ought to be touched with the argentum nitratum, or other caustic, and the wound should not be allowed to close until every appearance of a farther secretion from the sac has ceased." 115.

Encanthis.—This consists in an enlargement of the caruncula lachrymalis, implicating the valvula semi-lunaris, extending (when inveterate) along the edge of either eyelid, and advancing as far forward on the conjunctiva as the cornea. It is

by no means of frequent occurrence in this country, in any form, and is very rarely seen in a scirrhous condition. It is usually the consequence of neglected or ill-treated inflammation of the caruncula lachrymalis arising from external injury or irritation.

"The treatment of simple inflammation of the caruncula lachrymalis must depend upon the nature of its more obvious cause; and, as it most frequently arises from the presence of an irritating substance, the part itself, as well as the inside of the eyelid, should be carefully examined, and every extraneous substance removed. Dr. Monteath says he has seen it originate twice from a loose eyelash sticking in the superior punctum lachrymale and irritating the caruncle. When no immediate exciting cause can be discovered, several leeches should be applied in the neighbourhood of the part, and one should certainly be placed on the inside of the lower lid, close to the inflamed caruncle, the bleeding from which should be encouraged by repeated fomentations with warm water; and I would advise a repetition of the leeches until it is evident that the progress of the inflammation towards suppuration cannot be prevented, when a light poultice of bread and water should be had recourse to until the abscess is duly formed. I do not coincide in the opinions of foreign writers who recommend cold water and cold applications, generally, instead of the more active practice I have advised: and which may perhaps be one cause of the great frequency of the disease abroad, compared with its occurrence in England. When suppuration has unfortunately taken place, the treatment should still be, in the first instance, of the mildest nature, followed up by slight astringents; but if these should not be found sufficient to prevent the appearance of the fringed-like or fungous growth alluded to, recourse must be had to the infusum sabinæ, the sulphus cupri, and the argentum nitratum. The Germans recommend that they should be sprinkled with a powder composed of sacchar. alb, ʒij. aluminis usti gr. xv. zinci sulph. gr. iv. but in this, I place little comparative confidence" 121.

Pterygium. The symptoms and appearances of this complaint are so well known, and have been so often described by surgical and ophthalmic writers, that we need not dwell on them here. The cure of the well-formed pterygium should always be accomplished by removal. The pterygium tenue may be sometimes cured, when the patient is afraid of an operation, by slight scarifications and stimulants. The scarifications ought to be made by raising the pterygium with the forceps, and cutting across it in two or three places. After the second day the solutio argenti nitratis, or the vinum opii, or a solution of the carbonate of potash in distilled water (20 grains to the ounce) may be resorted to; but the cure by these means occupies a great deal of time—is often incomplete—and the patient gene-

rally is obliged to submit to the operation after all. The cure by this last is perfect, as far as relates to the termination of the disease; but a slight defect remains on that part of the cornea where the apex of the pterygium was situated. This arises from the cicatrix which takes place where the conjunctiva was removed, and which is in fact an indelible mark or nebula, although much less than the extent of surface exposed by the operation. The following is the mode of operating preferred by our author.

"The patient, being seated lower than the operator, ought to rest his head against the breast of an assistant, who elevates the upper eyelid, and fixes the eye with the fore and middle fingers of one hand, whilst he depresses the lower eyelid with the other. The surgeon should then desire the patient to turn the eye outwards, if the pterygium arise from the inner canthus; and, whilst it is thus on the stretch, take the opportunity of grasping it between the points of the forceps, about two lines from the cornea, and then raise it from the sclerotica, until he has room to pass an iris, or spear-pointed cataract knife, underneath it and to the inside of the forceps, when it is to be cut through from within outwards. The extremity of the pterygium being still held by the forceps, will allow the operator to cut it off close to the cornea, with the same knife, or by the curved scissors, which will be more easily effected, and more completely done. If any portion of the edge of the pterygium should have been left after this operation, it must be removed by the scissors, or it will keep up for several days the subsequent suppuration, and the eye should be washed with warm water until the bleeding ceases, when a compress and bandage should be applied, so as to keep the eyelids closed, but not to press on the eye. The eyelids should be carefully washed clean night and morning, or oftener if it be found agreeable to do so; but the eye should be opened to examine the wound, only so far as will show that the conjunctiva is not highly inflamed, or that chemosis has not taken place. On the fifth day the eye should be examined, when the divided surface of the sclerotica will be found covered with a yellow-coloured deposit resembling mucus, whilst the surrounding edge of the conjunctiva is irregular, red, and inflamed. This gradually diminishes, the wound contracts, and a new membrane is formed on the part, which, after a time, becomes less opaque, and assumes more and more the natural appearance of the conjunctiva. This process of the cicatrization, which goes on from two to three weeks, requires no assistance from art, and should not be interfered with by any application, unless it appears that some irregularity or elevation is about to take place, when this spot should be lightly touched with the sulphate of copper or the argentum nitratum. When the fungous elevation has been small and well defined, I have removed it with advantage by a snip of the scissors. When the cicatrization is nearly completed, mild stimulants should be dropped into the eye, to remove the chronic inflammation which may remain, and to assist in the absorption of the base of the pterygium, which is almost entirely effected, so as in time to be scarcely, if at all observable." 132.

The true pterygium rarely assumes a malignant character. When it does, the termination of its sides in the surrounding conjunctiva will not be so well defined—red vessels will be observed passing from a distaace into it—its colour will have changed to a darker red—it will be found to adhere firmly to the cornea and sclerotica beneath, so as not to be raised from them—it bleeds on being slightly touched—and is always attended by pain, sometimes of a lancinating nature, shooting through the eye, and indicating the presence of a cancerous disease, which can only be cut short by the removal of this part of the eye.

Removal of extraneous Substances from the Eye. The entrance of any extraneous substance is quickly perceived, not only by direct sensation, but in consequence of the motion of the lids. The situation of the offending body, however, has great influence in modifying the degree of pain produced by its presence. Thus, if the foreign substance should be lodged in that part where the conjunctiva is reflected over the ball of the eye, especially in the upper lid; then the irritation which ensues is merely that which arises from the local injury inflicted on the particular portion of the conjunctiva affected by it; whereas, when a solid substance sticks in the cornea, or the anterior and most prominent part of the sclerotica, over which the tarsal cartilage passes in winking, more severe symptoms ensue. If the foreign body should stick in the sclerotica at a part which is not pressed upon by the tarsal cartilage in winking, the symptoms are frequently so slight as only to cause an inconvenience scarcely amounting to pain.

"I lately removed," says Mr. G. "a small piece of the husk of a grass seed from the sclerotica at the upper edge of the cornea. in the eye of a young medical student, which had been lodged there for sixteen months. It had merely given rise to a little occasional irritation, which was augmented on his taking cold; and three or four red vessels running from the spot were then increased in size. It had caused a small depression, in which it was lodged, but whence it was easily removed, and all inconvenience immediately subsided. A knowledge of the comparative impunity with which such substances may be retained in the folds of the conjunctiva, especially of the upper lid, will cause a closer investigation to be made of this membrane, when the origin of the chronic inflammation, for which relief is desired, is attributed to an injury or accident of this nature; and if any fungous excrescence is perceived, it should be removed to its base by the scissors, in order that no extraneous matter may be concealed within it: for the records

of surgery afford numerous examples of this fact, and several cases have occurred to and have been happily cured by myself; the cure, indeed, after the removal of the exciting cause, being accomplished in almost every instance by the unassisted efforts of nature.

"Whenever the admission of any irritating matters between the eyelids is suspected, they should be carefully examined; the lower one offers no difficulty, the upper lid should be everted in the following manner. The patient should be placed on a chair, lower than the surgeon; who, taking hold of four or five of the cilia in the centre and close to the edge of the eyelid, gently draws them downwards and outwards from the ball of the eye. A probe, or other small round or blunt instrument, is then to be placed horizontally across the lid, immediately above the upper edge of the tarsal cartilage, when, by raising the cilia, which have been already grasped by the fore-finger and thumb, the eyelid may be turned out over the probe; the offending matters will be in general found adhering to the everted surface. If the patient be desired to look downwards with the other eye, the whole of the conjunctiva may be readily examined.*

"When a small fly, or any substance which is not sufficiently pointed to stick into or fast to the conjunctiva, gets between the lids, there is an action set up in the orbicularis muscle for its removal, which, together with the flow of tears, will frequently be successful, provided the person will remain perfectly quiet, and not strain the eye; at the end of a few minutes it will be found at the edge of the lid, and may be readily removed by a bystander." 137.

There never can be much difficulty in discovering foreign bodies that penetrate the cornea—and they must, of course, be removed. Wounds of the cornea made by a sharp cutting instrument, and of small extent, unite without difficulty, and leave no mark. If of large dimensions, it heals with a little elevation or irregularity, and a trifling scar remains. We must pass over many pages of judicious observations on wounds, &c. of the eye, and also a whole section on "tumours which are formed within the orbit, and on protrusions of the eyeball," because these portions cannot be concisely analyzed, and extracts would not do justice to the work. We come therefore to a chapter "on the alterations of form in the anterior part of the eye.—*Staphyloma.*"

This disease is known to take its name from its supposed resemblance to a grape, and consists essentially in a protuberance

* "When surgical aid is not at hand, I have seen ladies in the country slightly raise the eyelid in the same way, and introduce the tip of the tongue underneath it, by which a foreign body may be often brought out. The sensation is peculiar, but not unpleasant."

of the anterior part of the eyeball, particularly of the cornea, which has become opaque in consequence of acute inflammation, assuming various appearances all bearing a general resemblance to each other.

"When the cornea does not project between the eyelids so as to prevent their closing, it causes but little inconvenience to the patient, and is only unpleasant from the deformity it occasions. The first and most simple kind of staphyloma is of this nature, and appears to have been overlooked by both Richter and Beer in the definitions they have given of the disease. It occurs after or during a long continued inflammation of the eye, which has principally affected the conjunctiva and cornea, during which the latter becomes opaque, loses its natural appearance, projects and becomes more spheroidal, the conjunctiva covering it is thickened, and red vessels are to be observed on its surface, the iris may be partly discerned in its natural situation through the semi-opaque staphyloma; the anterior chamber contains a larger quantity than usual of the aqueous humour, and the projecting cornea has the greatest resemblance to an equal portion of a white grape. This state of the eye is irremidable.

"There is a good illustration of this disease in the person of William Jackson, now attending at the Infirmary When he first presented himself for advice, the eyelids were enormously thickened in consequence of a granulated and fungous state of the conjunctiva; the eyeball appeared to be a red fungous mass, in which the cornea was not distinguishable: he was perfectly blind. In the course of twelve months' treatment, the eyelids have been reduced to their natural state, the conjunctiva covering the eyeball has a more health appearance, the cornea is now well defined, semi-transparent like horn, and the patient can see, so as to avoid large objects in his way, with the left eye. The cornea of the eye projects in a spheroidal form, and the anterior chamber is increased in size. The disorganization having proceeded farther in the right eye, renders it entirely irrecoverable." 168.

By the German writers, staphyloma is supposed to depend on an external and internal swelling of the cornea, the consequence of inflammation, accompanied by a corresponding swelling and projection forwards of the iris, which adheres to the cornea, constituting the first step in its formation. For its completion they suppose that the secretion of the aqueous humour in the posterior chamber must continue unimpaired, when the cornea yields to the pressure, enlarges, and becomes staphylomatous.

"The thickness of the cornea should rather be regarded as a means offered by nature for resisting disease, than of assisting in its formation, which appears to me to be proved by the fact, that the remark of the greater prevalence of staphyloma in children, has not

been correct for the last twenty years, since the general introduction of vaccination, whilst it must be admitted with great regret by every surgeon of every hospital or public charity in the kingdom, that, during the last two years, infants have suffered considerably from it in consequence of the greater prevalence of the small pox. The reason why the inflammation of small pox causes staphyloma more frequently than any other inflammation, is not that there is any thing specific in it, but that it goes on to ulceration, and a state of ulceration of the cornea is necessary in almost every instance for the production of that kind of staphyloma of which we are now treating, and which Richter and Beer suppose to depend on the mere swelling, approximation, and adhesion of the cornea and iris. The anterior surface of the iris and the internal membrane of the cornea are not prone to adhere to each other, they are almost incapable of effecting it by the adhesive inflammation, and, in order to accomplish it, the inflammation must proceed beyond that point. So long then as ulceration does not take place and penetrate the cornea, will an infant, in almost every case of violent purulent ophthalmia, be free from danger of staphyloma; and as often as a variolous pustule forms on the cornea will an infant, in consequence of its ulceration and sloughing, be in danger of staphyloma. The thickness of a staphyloma which has been formed in infancy is readily accounted for, and so is the general adherence of the iris to it. For the opposite reason, a staphyloma formed at adult age is generally thinner and harder; whilst in children it is thicker, more spongy, and softer, but becoming occasionally with time, hard, and almost cartilaginous." 170.

The purulent ophthalmia which formerly prevailed to a considerable extent in a part of the army, gave rise to many total staphylomatous formations; but Mr. Guthrie has reason to believe that this did not happen in a single instance, unless sloughing or ulceration of the cornea had previously taken place.

The cure which Nature endeavours to effect in this disease is by thinning one particular part until at last it bursts, and the aqueous humour is evacuated. But this bursting has been produced by progressive absorption, which ends in ulceration that remains for several days, by which a drain is established, inflammation is excited, and an alteration takes place in the actions of the secretory apparatus, whereby the secretion is diminished. The eye becomes smaller, the ulcer heals —or, if the ulcer and inflammation be more extensive, suppuration takes place internally, and the eye sinks. But we must pass over many important practical observations of our author, as we have only room for one more extract relative to the operation for staphyloma.

"The operation is to be performed in the following manner: the patient's head being secured and the upper lid properly raised,

either by Bellier's speculum or the finger. the eye should be steadied by a gentle pressure, or, in a conical staphyloma, by a hook, whilst the operator passes a broad spear-pointed cataract knife across the centre of the staphyloma, and carries it downwards or upwards until rather more than one half of it is cut through by the passing out of the knife. Without allowing the eyelid to fall, the operator should raise the flap with the forceps, or desire it to be done by an assistant, if he should prefer elevating the lid himself; and then cut through the portion of the cornea remaining to complete the circle, with the scissors; when the operation will be finished, and the lid may be allowed to drop. The patient should be desired, if an adult. to be as quiet and as steady as possible; for the slightest irregular pressure or exertion, will cause the escape of the lens, and perhaps of a portion of the vitreous humour, which indeed, in children, can seldom be avoided.

"If the constant irritation should have caused a varicose state of the anterior part of the eye, as shown by the bluish leaden appearance of the sclerotica, which seems to be penetrated close to the cornea by many tortuous dark red vessels, accompanied, in its more advanced state, by a bulging out of particular parts in this same situation, the anterior portion of the eye ought to be removed, and with it the vessels which are in a varicose state. This operation is to be done in a similar manner, although farther back towards the centre of the eye, when the whole of its contents will be evacuated. In these cases a weeping venous hæmorrhage frequently takes place, and will continue for hours: it is seldom or never dangerous, unless the opening into the eye has been small, and the choroid coat and the retina, together with any coagulum which may form, close it up, when the bleeding continuing internally, and being only partly discharged, causes pressure and gives great pain. This will be remedied by removing the coagula, by cutting away any portion of the membranes which may fill up the opening, and by the application of cold. I have seldom applied any dressing but a light compress and bandage; if much tumefaction appeared in the lids, attended by pain, I have occasionally had recourse to a poultice. The upper eyelid should not be raised for five or six days, as it causes irritation, and the eye does not require examination whilst it can be cleansed without it. As the process of cicatrization proceeds, a small fungous-like granulation will sometimes appear in the centre, and require to be lightly touched by the argentum nitratum." 178.

We had hopes of being able to embrace the subject of cataract in this paper; but our limits, and the number of other articles requiring insertion, prevent us. We shall probably be able to bring the whole analysis to close in our next.

X.

QUARTERLY PERISCOPE OF PRACTICAL MEDICINE:

BEING THE

Spirit of the Public Journals,

FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriri oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.

1. *Researches on the Pathological Anatomy of the Digestive Canal.* By M. ANDRAL, Jun. M. D.* The following memoir was read at the *Académie Royale de Medecine*, in the sittings of March and April 1822, and received the highest commendation from Messieurs Chaussier and Cloquet, who were deputed to render some account of it to that learned body. The pathological observations contained in it appear to be possessed of great interest, and seem evidently written by one who must have paid very considerable attention to the anatomy of the body under health as well as under disease.

SECT. I.—*Anatomical characters of inflammation of the digestive tube.* The digestive canal, inflamed, when viewed externally, is generally contracted, and appears injected. Contraction of the intestines, however, sometimes exists independently of inflammation. It is not unfrequent, for example, to find the pyloric portion of the stomach strongly contracted and reduced to the size of a small intestine, although no mark of inflammation can be discovered on its internal surface: we have also frequently seen the great intestine strongly and universally contracted from the cæcum to the rectum, and yet no derangement in its mucous coat. The injection, when seen externally, is sometimes seated in the sub-peritoneal tissue only, more commonly it has its seat in the cellular layer, situated between the mucous and muscular coats, but in no case can the external appearance show the state of the mucous coat. It has frequently happened to us, to find this membrane evidently inflamed, disorganized, and ulcerated, in portions of the intestines, which, when seen and examined externally, had been regarded as healthy. An important error may there

* Nouveau Journal de Medecine, as in Nos. 111 to 114 of the London Medical Repository. We have deemed it proper to publish the whole of this Memoir at one view; and that it may not be said we did so to save trouble, we have given it entirely at our own private expense *beyond* the regular limits of the Journal. *Ed.*

fore be committed, if, as is sometimes done, we pretend to judge of the healthy or morbid condition of the intestine by the appearance of its external surface.

If we examine its internal surface, we find it present a multitude of different aspects: an uniform red colour is often observed of a greater or less extent, which varies from the most intense vermilion to the deepest brown. Sometimes this redness loses itself by little and little, as is observed more particularly in the small intestine; whilst at other times it terminates abruptly, as is frequently observed at the union of the pyloric portion of the stomach with the splenic, at the junction of the stomach and duodenum, and at the ileo-cæcal valve, the superior surface of which is often found very red, whilst the inferior is very white, and *vice versa*. The valvulæ of the small intestine are commonly of a much deeper red than the intervals which separate them; but if they are unfolded, this more intense colour is observed to disappear: at other times there exist, in several places, red or brown patches of a round or irregular figure, between which the internal surface of the intestine is nearly white: these patches seem to form so many isolated phlegmasiæ. It is not uncommon, in place of an uniform red tint, to meet with numerous arborescent appearances, occasioned by a strong injection of the vessels, and their numerous anastomoses; around these vessels a crowd of small red points frequently appear, which seem to be sometimes owing to a more violent partial injection, and occasionally to a slight circumscribed sanguineous extravasation. Finally, pimples, pustules, and fungous excrescences of different forms and sizes, sometimes arise from the internal surface of the intestine.

It is not sufficient, however, to have opened the intestinal canal, and to have observed, with more or less attention, the state of the internal surface: the mucous surface must be separated from the subjacent tissues; must be studied when thus separated; and the lesions which the other tunics have undergone, be afterwards investigated. This is the manner in which we shall proceed at present.

If we open the stomach, or any portion of the intestine of a living animal, we find that, except during digestion, the mucous membrane is every where of a white or rosy white colour; through its tissue, which is perfectly transparent, the subjacent laminated tissue may be discerned: it is commonly but triflingly injected; but it becomes more so if the animal struggles much. During the process of chymification, the mucous coat of the stomach is commonly of a deepish red colour: in proportion as the chyme passes forward in the intestines, their mucous coat becomes vascular like that of the stomach. The same colour is observed in the portions of the great intestine, where the fecal matters accumulate and sojourn. Thus, in several rabbits where we have had occasion to examine the digestive tube, we have found the mucous coat of their enormous cæcum, which is always filled with a great quantity of feces, of a lively red.

With regard to thickness, the mucous membrane of the digestive passages presents great varieties in its different parts. In the stomach it is at its *maximum;* it is thinner in the small intestines; and still more so in the cæcum and colon, where it only forms a sort of very thin cuticle.

Its consistence is every where in a direct ratio to its thickness: thus, in the stomach it can easily be detached in large flaps, and may be pulled in different directions without tearing, whilst in the great intestine it tears on the least effort.

Its adhesion to the subjacent laminated tissue is by no means considerable in the stomach. In the duodenum it can only be separated with great difficulty: in the remainder of the small intestines, the adhesion of the mucous coat is more intimate where it covers the valvulæ, than in

the intervals between them; in the great intestine this adhesion is tolerably strong.

Such has appeared to us the mucous membrane of the digestive canal in its physiological state. When attacked with inflammation, it presents numerous modifications in its colour, thickness, consistence, texture, and frequently in the state of its follicles: the liquids which cover its surface, also undergo remarkable changes with respect to quantity and quality.

The first effect of inflammation is, to occasion a greater flow of blood into the part of the mucous coat which is attacked by it: when detached under such circumstances, and held between the eye and the light, this membrane sometimes appears overrun by numerous vascular networks; whilst at other times it presents an uniform red tint, and completely intercepts the passage of the luminous rays. This latter condition indicates a more considerable afflux of blood: the smallest vascular ramifications are filled with it, and are so closely compacted that no interval exists between them. Anatomists, in their artificial injections, can easily give this uniform red tint to the tissues, and especially to those which are membraneous. In place of presenting a red colour, the mucous membrane, when in an inflamed state, is frequently of a *more or less deep brown colour*. This tint does not depend upon the duration of the inflammation: it is sometimes observed to supervene in a very short space of time when the inflammation is violent, at which times it seems to announce the commencement of the disorganization of the membrane. Carry into the stomach of an animal some strong corrosive poison, such as corrosive sublimate, arsenic, sugar of lead, &c. and you will find in a very short space of time, an hour for example, the mucous membrane of a cherry red in several parts, whilst in others it is of a brownish grey. Sometimes this latter colour exists alone. Professor Orfila found that the mucous coat of the stomach was of a very deep reddish brown, in animals which had swallowed euphorbium about twenty-four hours previously. In man, the mucous coat of the stomach frequently presents the same tint, whilst at the same time it is softened.

It results from these facts, that the brown colour of the mucous membrane of the digestive canal is a product of its inflammation, and that it may equally manifest itself, in violent inflammations, which occasion, in a very short space of time, the disorganization of the tissue with which they are placed in contact; and in chronic, which in process of time produce the same result.

At the same time that the mucous coat becomes injected with blood, it must be necessarily thickened. This thickening, like the inflammation which gave it birth, may be general or circumscribed. It is particularly well marked in chronic inflammations: we have oftentimes seen, in cases of chronic diarrhœa, the mucous membrane of the colon of a thickness equal to that of the four tunica united, in their ordinary state.

The circumscribed thickening of the mucous coat is tolerably frequent: it appears under the form of round or oblong patches, projecting above the remainder of the internal surface of the canal, to the extent of two or three lines. The surface of these patches is glossy and rugous: the mucous membrane which surrounds them is sometimes perfectly white and transparent, sometimes more or less strongly injected. Their dimensions are variable; the greatest which we have seen, were at least of the size of a crown piece: the smallest were about the size of a shilling. These partial thickenings of the mucous coat are very rare in the stomach; more common in the great intestine, especially in the transverse colon, and more common still in the inferior part of the small intestine. Sometimes one only of a greater or smaller size is met with: at other times they are found to exist in very great numbers. With respect to colour, two species may be admitted: some are red, and appear to be of recent formation whilst others are of a white, more faded than the rest of the mucous coat, and appear to be the result of an old inflammation, the other signs of which have disappeared: it is a sort of termination by induration.

When the thickening of the mucous tunic is considerable, it preserves, in the greater number of cases, its consistence, or even acquires a greater density: but at other times we find this membrane of its ordinary thickness, and singularly softened.

Pathological observations and experiments made on living animals, show that softening of the mucous coat may take place in a very short time, provided the inflammation be very violent. Half an hour after some grains of corrosive sublimate had been injected into the stomach of a dog, Mr. Brodie found that the mucous coat of the organ had undergone a remarkable softening.

In this condition it is impossible to detach the mucous tunic under the form of membrane; it is semi-liquid, and the slightest rubbing with the scalpel, or friction with the finger, reduces it into a sort of pulp or reddish *bouillie*.

A similar softening is sometimes observed in mucous membranes, which are decidedly white. Must not this condition, like the white circumscribed patches of which we have already spoken, be considered as the sequel of an old inflammation? We shall see further on that this pulpy sort of condition of the mucous coat, with whiteness of its tissue, is one of the lesions which the great intestine presents, in cases of chronic diarrhœa.

Not only does the mucous coat, when in a state of inflammation, become thickened and softened, but *vegetations* sometimes arise from its internal surface, of a red or brown colour, conoïd form, and of extreme softness, pressed one against the other, and projecting four or five lines above the rest of the membrane. They somewhat resemble the papillæ of the under surface of the tongue, supposing those divided in small fragments in the direction of their length, and, like them, they are loose and moveable. A great number of similar vegetations were found in the stomach of a man, who died two months after having taken powdered cantharides (Orfila.) We have observed them in the large intestine only.

In place of these vegetations, the mucous membrane sometimes presents white conical *pustules*, projecting from half a line to a line, being about as large as the head of a pin, the majority depressed at the summit, and exactly resembling variolous pustules. They are rarely found isolated, being most commonly grouped, like the eruption of confluent small-pox. Between them the mucous membrane is sometimes red, sometimes scarcely injected. We have never met with these pustules in the stomach. Once we have observed the internal surface of the duodenum covered with them in its upper portion; we have seen them three times in the transverse colon; but it is in the two lower fifths of the small intestine that they most commonly show themselves.

We have more frequently witnessed in the colon pustules of a different aspect. They are conical like those just mentioned, and are situated in the mucous coat, which, when removed, takes them along with it. Their base is, however, much broader, their height more considerable; they terminate in a pointed head; they are of a deep cherry red, and the mucous coat around them is but little injected. We cannot give a more exact idea than by comparing them to those small tumours of the skin, known under the name of furuncles or boils.

M. Lerminier has proposed to designate these different species of eruptions under the generic name of *exanthema internum* (*exanthème interne.*) This is one of the lesions which the intestines present in fevers, as we shall elsewhere show.

The mucous coat, when inflamed, is modified in its functions, like other tissues, when attacked with inflammation. The examination of the changes which the constant absorption undergoes, that takes place at its surface, does not belong to the province of pathological anatomy; we shall not, therefore, enter into it here, but proceed to point out the modifications experienced by the liquids secreted by it, both as regards their quality and their quantity.

The changes in the quality of the *gastric and intestinal mucus* cannot always be easily appreciated, in consequence of its either being mixed with the drink and chyme, or with the biliary and pancreatic fluids.

It presents two important modifications: sometimes, instead of being viscid, ropy, tolerably consistant, it becomes much more liquid, and resembles serum; at other times, on the contrary, it becomes more plastic, concretes, and is transformed into a *false membrane*. All authors have spoken of false membranes lining the internal surface of the colon in dysentery, and being evacuated per anum. May they not in some cases, become organized, adhere together like the false membranes of the serous coats, and occasion the obliteration of a part of the intestine? We read, in truth, in authors, of examples of inflamed intestines which were by that means partially obliterated. We have never had an opportunity of witnessing the organization of this species of false membranes. We have never observed these membranes except in the stomach and great intestine.

We have found the whole of the internal surface of the pyloric portion of the stomach lined by a greyish, tenacious layer, which might be torn into flaps, and simply lying on the mucous coat, of which it was, at least, the thickness. In a young girl, twelve years of age, the internal surface of whose stomach presented a great number of red patches, extending in the form of broad stripes from the cardia to the pylorus, we found each of these patches covered by a membraniform, greyish, albuminous layer: between them the internal surface of the stomach, which was very white, was not covered with any false membrane.

It is not uncommon to find the portions of an inflamed intestine filled with a *reddish liquid*, which appears to be owing to a mixture of mucus and blood. The cæcum and the end of small intestine are the parts where it is most commonly met with. We have sometimes observed bundles of ascarides situated in this bloody liquid, which existed in no place except surrounding them.

On injecting corrosive sublimate into the subcutaneous cellular tissue of an animal, Dr. Smith found the mucous coat of the stomach covered with an abundant *sanguineous exhalation*.

The *quantity of liquid* exhaled by the mucous coat, in a state of inflammation, is sometimes prodigious. Morgagni has cited the example of a woman, who, in one day only, passed, *per anum*, forty pounds of a limpid fluid. The debility into which such a considerable discharge throws the animal economy, may be sufficiently considerable to occasion death in a very short space of time.

It is not the secretion of the mucous coat only which in this case is modified and augmented. Dissection demonstrates that the inflammed intestine solicits a more abundant *secretion of bile*, which flows towards the parts labouring under inflammation. Stoll has noticed this fact: but far from regarding the afflux of bile as being owing to a pre-existent inflammation of the intestine, he regarded the latter as an effect of the presence of the bepatic fluid.

The *sub-mucous cellular tissue*, in the greatest number of cases remains untouched beneath the mucous coat, when the latter is violently inflammed and even disorganized. Occasionally, however, it is found pretty strongly injected; sometimes, also, like the cellular tissue which surrounds the arteries, it acquires an extreme fragility. We may then very easily detach the mucous coat without tearing it, to the extent of several inches: in some cases sanguineous effusion takes place between its interstices, (*dans ses mailles*,) some examples of which we have met with in the human subject. M. Orfila observed it in animals poisoned by the daphne laureola. Finally, in many chronic inflammations, the sub-mucous cellular tissue becomes more dense, and of a scirrhous hardness; at such times, its thickness exceeds that of all the tunics united. More rarely we have found it softened and of a pulpy nature.

The *muscular coat* presents few alterations in its texture. We have, however, seen it sometimes very much softened, the slightest traction at such times

being sufficient to tear it. In other cases it has appeared to us considerably thickened. We have found it in the transverse and descending colon of a scirrhous density and hardness; but the disposition of its fibres was still very distinct, the longitudinal and circular arrangement being perfectly perceptible. Finally, we have sometimes met with it of a deep red, whilst in its sound state it is white.

But if inflammation of the mucous coat is rarely propagated to the muscular, we frequently observe the latter sympathetically irritated, and contracted in parts where the stimulus is applied. This fact may be readily proved by direct experiments: if we inject an irritating substance into any portion of the intestinal canal of an animal, the intestine is observed to become indurated and to contract, at the part where its internal surface is in contact with the poison. The contraction of the intestine continues after death, as we have already seen: being commonly partial, like the inflammation, it very rarely exists in the whole extent of the canal. One of the most remarkable facts of this kind is related by M. Tartra in his thesis:—An individual died, three months after having swallowed nitric acid; the digestive canal was reduced to so small a volume, *that it might* (as it were) *have been held in the hollow of the hand*, its calibre, through the whole length, not exceeding, in size, the barrel of a quill.

May not the irregular and multiplied contractions, of which the muscular membrane of the inflamed intestine becomes the seat, be regarded as one of the causes of *invaginations of the intestines?* Boyer has well described the mechanism of these invaginations, from observation on living frogs. By irritating the intestines of these animals, he saw them contract forcibly in several parts, whilst in others they remained distended with aliment and flatus; these latter portions he saw receive the former. "Hæ ità ampliatæ intrà se receperunt constrictas intestini portiones, easque sinu suo absconditas aliquam diù detinuerunt, donec fibris se denuò exporrigentibus intestini pars una è latibulo alterius, velut è domunculo limax, pristinam in sedem rediret."

But although several authors have remarked that they have constantly found the mucous coat very much inflamed at the part where *intus-susceptions* existed, and have regarded them either as the cause or the effect of such inflammation, we can affirm that they more frequently exist without inflammation of the intestines. It is probable that many of them are found only at the moment of death, a period at which the peristaltic motion of the intestines become much more active, as experiments, made on living animals, demonstrate.

Considered with relation to their seat, intestinal intus-susceptions are far from being equally frequent in the different portions of the digestive tube. The ileum is the most common situation in which they occur. Fabricius Hildanus and Bartholin have seen the cæcum received into the ileum; Hartmann, on the contrary, found the ileum received into the cæcum. Invaginations of the colon are very rare. Meckel says he has seen the transverse and descending colon introduced into its sigmoid flexure. Bonetus has related a case of invagination of the rectum in a man who died of obstinate obstruction of the bowels, accompanied with vomiting of a fecal matter. Can we believe the assertion of a German writer, who says he has seen the duodenum invaginated in the ductus choledochus?

With regard to their disposition, the superior portion of the intestine is most commonly received into the inferior. Sometimes they are very numerous: we have observed as many as seven in the same subject. Their length may vary from some inches to upwards of two feet.

The symptoms occasioned by invagination of the intestines vary according to their size, situation, number, and degree of obliteration of the intestine.

The *subperitoneal cellular tissue* is still more rarely affected than the submucous: like the latter, it may become very fragile; like it, also, it may acquire considerable thickness. In the latter case, the peritoneal covering is

found to be separated from the muscular coat by a cellular layer, two or three lines in thickness, whilst, in the ordinary state, we rather suppose it, as it cannot really be seen.

The *peritoneal coat* almost always remains untouched: occasionally, however, like the two laminated membranes, (*comme les deux membranes lamineuses*) it is very fragile. We have found, in some cases, all the coats of the intestine equally softened at the same time, and to a very high degree. The slightest traction was sufficient at such times to tear its parietes; and when gently rubbed between the fingers, they became reduced into pulp.

This general softening has seemed to us to be more common in the stomach than in any other portion of the intestine.

The mucous coat of the digestive canal, disorganized by inflammation, is apt to become destroyed to a greater or less extent, and whether it is, that the particles composing its tissues are absorbed, and that they are carried away along with the contents of the intestine, *ulcerations* are the consequence, which always originate in the mucous membrane, primitively or secondarily inflamed.

Ulcerations may occur in all parts of the intestine from the cardia to the anus: but they are by no means of equal frequency in every portion. Thus they are sufficiently rare in the stomach, and still more uncommon in the duodenum and jejunum. They are very common in the lower third of the small intestine, and less so in the different portions of the great intestine. We may judge of their respective frequency by the following table, which was formed from the results of fifty-three dissections, several of which had ulcerations, at the same time, in many parts of the digestive tube:—

Seat of the Ulcerations.		*Number of Subjects.*
Stomach		9
Duodenum		1
Jejunum		9
Ileum (lower portion)		26
Cæcum		10
Colon	Ascending	4
	Transverse	11
	Descending	3
Rectum		1

These ulcerations are commonly numerous, except in the stomach, where we generally observe only one or two. In the superior portion of the small intestine, they are constantly separated by great intervals. In its inferior portion, we always find them much nearer to each other: they are frequently united and confounded near the ileo-cæcal valve, so as to form, by their union, one large ulcer. In the cæcum it is very unusual to find them so confluent, as well as in the remainder of the large intestine, where the spaces which separate them are commonly more considerable than the spaces, even, which they occupy.

They frequently arise in the middle of the red circumscribed patches of which we have already spoken, and at such times the mucous coat which surrounds them remains white, as around the patches. It is important to remark this disposition, because the perfect whiteness which exists around many ulcerations, had occasioned it to be admitted that they might occur in the mucous membrane without previous inflammation; but it is clear that they are, in this case, the result of partial inflammation.

Ulcerations also follow the pimples and pustules with which the mucous membrane is sometimes covered. If, in fact, we observe attentively these

different exanthemata, a slight erosion may be perceived at the tops of many: the summit of some others will be found to have undergone a more considerable loss of substance: the small ulcer which results extends progressively from the top of the pustule to its base, finishing by entirely destroying it. Does not the greatest analogy exist between the mode of the production of these ulcerations, and the development of certain ulcers of the mouth, which likewise owe their origin to small pustules known under the name of aphthæ?

Sometimes, also, the ulcerations are, as we shall hereafter establish, the result of the separation of eschars on the mucous membrane.

Is it in the mucous follicles that ulcerations most commonly commence? Several authors have thought so. The greater vital activity in the follicles than in the other parts of the mucous coat, the more considerable vessels which they receive, the frequently extraordinary secretion of which they become the seat in many intestinal phlegmasiæ, may lead us to suppose, that whenever the mucous coat is inflamed, they are most especially irritated, become disorganized, destroyed, and ulcerated: but no fact shows that this is *actually* the case. The greater frequency of ulcerations in the lower portion of the small intestine is, in truth, in a direct ratio with the greater number of follicles in this same part; but in the duodenum, the follicles are likewise extremely numerous; they are larger, more apparent than any where else, and, notwithstanding this, the duodenum is the part of the *digestive* tube where ulcerations must rarely show themselves.

Nothing fixed can be established regarding the period at which the mucous membrane, when inflamed, becomes ulcerated: it frequently happens that no evidence of *solution of continuity* is to be met with, although it has been the seat of very old and tolerably intense inflammation. The facility and rapidity of its ulceration appear connected with some individual, inexplicable, disposition. This is demonstrated by experiments made on living animals of the same age and strength, which have been poisoned by an equal dose of corrosive sublimate. At the end of forty-eight hours, we find, in some, only a lively red colour of the mucous coat of the stomach, whilst, in others, the internal surface of the stomach already presents one or more ulcerations. We read in Morgagni the case of an individual who, whilst in perfect health, was suddenly seized with most excruciating pain at the epigastrium, and with every other symptom of gastritis. He died at the end of twenty-four hours: ulcerations existed in his stomach.

The size of intestinal ulcerations is infinitely varied: some are so small they will scarcely admit the head of an ordinary pin; others are several inches in diameter in every direction: we have sometimes seen them occupy the whole circumference of a portion of the intestine. We have found the mucous coat entirely removed for more than six fingers' breadth above the cæcum: it is in this part of the intestine and in the stomach that we have met with the largest ulcerations. Some are oblong, and have their largest diameter in the direction of the length, or of the breadth of the intestine; others are exactly circular, and others again are linear.

Their edges are always formed by the mucous membrane. Sometimes they are red, thick, and elevated two or three lines above the base of the ulcer, whilst, at others, they are white, thin, and on a level with the bottom. Occasionally they are irregularly formed, and present numerous fringes, which advance from the circumference towards the centre of the ulcer.

We have often met with the mucous membrane separated to a pretty considerable extent around the ulcers: when they are in great number, and in proximity with each other, the mucous coat which separates them is sometimes entirely, or almost entirely detached from the subjacent tissue. This separation, owing to the morbid alteration of the cellular tissue, is similar to that which is observed around many cutaneous ulcers.

The base of the ulcerations differs according to the time at which we exa-

mine it. If the solution of continuity be recent, the laminated tissue which forms its base is thin and white as in its natural state:—it may preserve this appearance for a longer or shorter time: but when the ulceration has already existed for some time, it commonly acquires a considerable thickness, which may be easily felt on touching the external surface of the intestine—it becomes rugous, unequal, granulated—it is of a gray, red, or brown colour—it secretes a liquid which shows only these different tints, which sometimes concretes into a false membrane, and forms, at its surface, a layer more or less dense—in some circumstances it assumes a totally black colour, and seems to be transformed into a true eschar. But most commonly the laminated tissue becomes insensibly destroyed, after the manner of parts affected with that species of inflammation which Hunter designated under the name of ulcerative inflammation, and the base of the ulceration is then formed by the muscular membrane. This latter coat sometimes preserves its natural appearance; at others, it becomes progressively very red, soft, black, and destroyed in its turn, leaving the peritoneal membrane exposed. The base of the vast ulcerations at the end of the small intestine, or in the cæcum, frequently show these different coats exposed in different parts of its extent. In some cases, we may in a manner follow with the eye the successive destruction of the coats from the internal towards the external surface of the intestine, and from the centre of the ulceration towards its circumference. At such times, the edges of the ulcers are observed to present, as it were, different stages. The first, the most remote from the centre, is formed by the thin or thickened mucous coat, of a red or white colour; the second, situated more internally, is formed by the laminated tissue; the third, still nearer the centre, is formed of the muscular coat; and, finally, at the base, the thin and transparent peritoneal coat is observable. This last membrane grows altered in its turn: it becomes more fragile, tears, and perforation of the intestine is the result.

Such is the progressive march pursued by these ulcerations, when they extend in depth, but most commonly they seem to have a tendency to extend in width only, at the expense of the mucous membrane alone. Thus, in the majority of cases, we have found the base occupied by the laminated tissue.

As the ulcerations may form very rapidly, so may they extend in depth with a rapidity sometimes terrific. This is attested by various cases of poisoning, in which the intestines have been found perforated in a very short time.

Under some circumstances, the perforation is effectuated from the exterior to the interior. This occasionally occurs in cases where tubercles are formed in the peritoneal coat: becoming soft, this accidental tissue destroys the serous coat, and an ulcer results, the base of which is formed by the muscular tunic. Sooner or later this becomes destroyed likewise, and the parietes of the intestines are formed, under such circumstances, at these parts of the thin and transparent mucous membrane alone: finally, this last gives way in its turn. We have recently witnessed these different stages in a young man affected with tubercular peritonitis (*péritonite tuberculeuse.*)

Intestinal perforations may likewise supervene without previous ulceration, in cases where all the coats which constitute the parietes of the intestine are softened at the same time. The least force exercised upon these parietes by solid, liquid, or gaseous bodies, is, under such circumstances, sufficient to occasion their rupture. Can an intestine, the parietes of which are neither ulcerated nor softened, be so much distended with flatus or liquids as to burst? The stomach of herbivorous animals presents this phenomenon. Frank cites facts which appear to demonstrate that a similar rupture may be produced in man by the accumulation of flatus in a circumscribed portion of the intestines. It is thus that, according to Stoll, the bladder may burst when it is distended by a too great quantity of urine.

May not intestinal worms, in some cases, destroy and pierce the parietes of the canal which they inhabit? or, in cases where many of these animals have

been found in the peritoneum, have they passed through a perforation which had been already made? Some observations of Wepfer tend to cause us to admit the possibility of the perforation of the intestine by worms. In the thirteenth chapter of his treatise on the *Cicuta Aquatica*, he observes that, on dissecting dogs, he found lumbrici in their intestines, many of which were still living, and adhering strongly to the parietes of the intestine by one of their extremities, in the manner of a leech: "Proboscis firmissimè internæ intestinorum tunicæ infigebatur, à quâ etiam, sublato intestino, hirudinum instar, pendebant. Hi monstrarunt rationem et modam quo intestina, umbilicum, et inguina perforent."

Whatever may have been the mechanical or vital cause under the influence of which the intestine has been perforated, its cavity communicates either with the exterior—with some viscus—or with the cavity of the peritoneum. Hence arises the very great difference between the symptoms, which follow the perforation and which announce it.

1. *Communication between the digestive tube and the exterior.*—Examples of this are numerous: it is the artificial anus. Adhesions are established between the edge of the perforated intestine and the abdominal parietes, and no effusion can take place into the peritoneum. We can thus explain how a ball may traverse the abdominal parietes, and be voided by stool, without having been attended with fatal effects, (*Ephem. Nat. Cur.*) how a knife swallowed was discharged, at the end of seven weeks, through an abscess formed at the epigastrium, without the patient succumbing. The following case we observed at *La Charité*:—A man, thirty-four years of age, had been affected with diarrhœa for several months; a hectic fever insensibly consumed him; he complained of a violent pain in the right iliac region; this part soon grew tumefied, and fluctuation became manifest. A lancet was passed into the centre of the tumour; this gave issue to some fetid gas, with a few drops of a greyish liquid equally fetid. The following days a larger quantity was discharged; the patient soon fell into the last stage of marasmus. We found beneath the skin of the iliac fossa a vast abscess, containing a greyish liquid of a gangrenous fetor, and circumscribed on every side by thick cellular bands (*brides*.) Scarcely any traces of the muscular fibres of the parietes of the abdomen were recognizable; they were blackish, soft, and, as it were, diffluent. At the bottom of the abscess was the cæcum, the external parietes of which presented a perforation with irregular edges, sufficiently large to admit the extremity of the little finger. Numerous ulcerations existed in the intestine.

2. *Communication between the digestive tube and another organ.*—In this case, as in the preceding, adhesions, established by the beneficence of Nature, prevent any effusion into the peritoneum. Sometimes the intestine opens into a hollow part, into which it empties itself: thus, Frank has seen a communication established between the arch of the colon and the bladder. Sometimes the dense and solid tissue of a viscus supplies the destroyed parietes of the stomach or intestines. Thus we have often seen the bottom of carcinomatous ulcers of the stomach formed by the liver or the pancreas. Frank relates cases in which the parietes of the intestine was supplied by the spleen and by the kidney.

Authors worthy of credit even assure us that they have seen communications formed between the stomach and thoracic cavity. Willis, quoted by Benetus, found in a subject the diaphragm destroyed, and the stomach opening, by a large aperture at its superior edge, into a pleuritic pouch of the right side. Van Swieten relates a nearly similar example.

3. *Communication between the digestive tube and the peritoneal cavity.*—In this case, the matters discharged from the perforated intestine are effused into the serous membrane. The peritonitis, which is the consequence, is attended with great variety, as regards its march, its duration, and its symptoms.

Most commonly it has a very acute progress; the patient sometimes dying

a few hours after the first symptoms have manifested themselves. Some patients are warned by a very particular sensation at the precise moment at which the effusion takes place. A man, whose cancerous stomach gave way during violent efforts of vomiting, informed us that he had distinctly felt as if a ball had descended from the epigastrium towards the umbilicus, immediately before the pains of peritonitis declared themselves. Stoll relates the case of a patient who, when labouring under retention of urine, felt something suddenly give way in his abdomen, and became at the same time stiff and livid: it was the bladder which had given way. The patients experience excruciating pain; they are in a state of extreme anxiety; the features of the face become rapidly discomposed; the pulse is irregular, thready, &c.

This *ensemble* of frightful symptoms is seen to manifest itself suddenly in individuals who, some minutes before, appeared to enjoy perfect health: their digestive tube has been perforated.

These facts prove with what astonishing rapidity ulcerated inflammation may be propagated: through it the slightest enteritis or gastritis may suddenly become mortal. The following case presents a striking example of it:—

A brushmaker, aged seventeen years and a half, of a lymphatico-sanguine temperament, had always experienced very good health. On the 13th of October, 1822, at seven o'clock in the evening, he felt, without any known cause, tupor and general indisposition. During the whole of the night his skin was of a burning heat. The next day, 14th, same state; anorexia, only one stool; abundant perspiration during the night. 15th, he was received into *La Charité*. He perspired again in the nights of the 15th and 16th. At the visit of the 16th, he presented the following symptoms:—Face red; eyes sparkling; pains in the limbs; tongue covered with a thick yellowish coat; lips red; *fœtor oris*—anorexia; slight thirst; belly soft and without pain; no stool for twenty-four hours; pulse frequent, tolerably full; skin moist. (*Barley-water with gum, a lavement of marsh-mallows.*) The patient had only one dejection until the next morning.

17th. Six grains of ipecacuanha were administered; the patient vomited twice a tolerably large quantity of bile; no motion; in the night slept well; awoke in a slight perspiration.

The next day, in the morning, (18th,) the yellowish coating of the tongue had disappeared, and it was of a fine vermilion colour; the bad taste in the mouth no longer existed; the pulse was a little frequent; the temperature of the skin nearly natural.

From the 19th to the 22d a slight febrile movement continued: anorexia; same state of tongue. One motion each day after the *lavement*. (*Emollient tisanes; broth.*)

23d. The tongue was much redder; the frequency of pulse had considerably augmented; the skin was burning; the abdomen painful on pressure. Two liquid motions in the last twenty-four hours. This return of the symptoms was combated by the application of eight leeches to the anus. (*Barley-water diet.*)

During the day, the pains of the abdomen assumed a terrifying intensity, and in the night he began to vomit a great quantity of green porraceous bile.

In the morning of the 24th we found him lying on his right side: the eye dim; the face pale and cadaverous; the slightest pressure upon the abdomen, the least movement, occasioned the most violent pain. Continual nausea tormented him, which was followed, from time to time, with the expulsion of some gulps of bile. Respiration quick and laborious; pulse very frequent, small; skin without heat. The existence of peritonitis did not admit of doubt. M. Lerminier presumed that the cause might be referred to an intestinal perforation. (*Forty leeches to the abdomen; oily fomentations; mild sinapisms to the legs in the evening. Linseed tea.*)

The vomiting continued to take place during the day.

25th. Eight o'clock, A. M. abdomen less sensible, but swollen and renitent; no fluctuation could be felt; the limbs where cold; the pulse thready; the eye, however, had still a tolerably natural expression: the intellect was clear; the speech free. (*Blisters to the thighs.*)

He died at 5 o'clock in the evening.

Sectio Cadaveris, performed fifteen hours after death.—Albuminous flakes, forming false membranes, united together the folds of the small intestine. A turbid, lactescent, very fetid, serous fluid was effused into the two flanks and into the hollow of the pelvis. The peritoneum underneath the albuminous flakes was strongly injected. The mucous membrane of the stomach was every where white and sound: an equal degree of whiteness was observable in the whole extent of the small intestine; but about a foot above the ileo-cæcal valve there existed five or six oval pimples, as white as the mucous coat surrounding them. The centre of one of these was ulcerated: the base of this ulceration, formed by the serous membrane, had in its centre a round perforation of a line and a half or two lines in diameter. Round these pimples the mucous membrane was covered with several small, white, miliary pustules, developed in its interior, and scarcely projecting above its surface.

The great intestine was perfectly sound, as well as the other viscera.

A tubercular mass, of the size of a small nut, existed at the top of the right lung. The exacerbation of the 23d correctly marked the period at which the ulceration took place: the perforation was produced a few hours afterwards.

When a perforation of the intestines supervenes in an individual labouring under typhus fever, with prostration of strength, and remarkable diminution of the general sensibility, it is not always easy to detect the peritonitis occasioned by it. In cases of this kind, in fact, we have seen the patient exhibit no signs of pain, even when the abdomen was strongly pressed upon, in any and every part. The sudden alteration of the features, the unusual tension of the belly, the change in the pulse, which becomes suddenly small and hard, may, at such times, cause us to suspect the existence of inflammation of the peritoneum: acute peritonitis, without pain, supervening on perforation of the stomach and occuring in fever, has been noticed by Morgagni.

Finally, we have seen peritonitis, occasioned by a solution of continuity in the parietes of the intestines, observe a chronic progress. A young man labouring under phthisis pulmonalis had had a copious diarrhœa for a long time: the abdomen had always been without pain. One day he complained of violent pain round the umbilicus; pressure increased it: it was regarded as the product of the inflammation, of which the digestive tube was the seat: this continued incessantly, but not severely, during eight or ten days; none of the other symptoms became aggravated in a remarkable manner: the patient suddenly felt his abdomen wetted by a tolerably large quantity of liquid, and perceived that a linear crack existed at the umbilicus: during the day an ascaris lubricoides was discharged, along with a yellow liquid similar to that commonly contained in the small intestines. Was it not reasonable to suppose that a portion of the intestine had been perforated; that by the aid of partial adhesions contracted between it and the parietes of the abdomen, no effusion could take place into the peritoneum; and that the abdominal parietes had, in their turn, become inflamed and perforated? Was it not, in a word, a preternatural anus which had been formed? On the following days, however, a small quantity of liquid continued to be discharged by the fistula; the abdominal pain was somewhat intense. The patient, who had arrived at the last stage of pulmonary consumption, succumbed twenty-seven days after the first appearance of pain, and about eighteen days after the formation of the fistula. The traces of a dreadful peritonitis were discovered. The intestines were united into one mass by black and very thick false membranes: a quantity of greenish liquid was effused between the folds of the intestines; it was there retained by membranous bands, which formed the parietes of a number of small cavi-

ties: no adhesion existed at the umbilical region: in the peritoneum two ascarides lumbricoides were found; their presence did not permit a doubt regarding the existence of an intestinal perforation, but the adhesions were so multiplied and so intimate, that it was impossible to discover it.

Stoll has related the case of a young man, who, after having laboured for six months under frequent vomiting and diarrhœa, was seized with violent pain in the abdomen after having taken cold: the twelve following days, he walked a considerable distance, each morning, in order to receive his medicine at the hospital; on the twelfth day he proceeded on foot as usual. The abdomen was tense and painful to the touch, countenance anxious and emaciated, pulse very frequent and small. He died in the evening, a short time after having himself given the preceding details. The peritoneum contained a bloody fluid, mixed with liquid stercoraceous matter. The ileum, not far from the cæcum, presented a hole sufficiently large to admit a filbert. The whole of the digestive tube was, moreover, inflamed.

There are some fortunate cases in which perforation of the intestine has not been followed by effusion into the peritoneum. Thus we have seen one of these perforations comprised between the two laminæ of the mesentery, out of the cavity of the serous membrane. We have also seen the spleen exactly applied upon the perforated stomach at its great *cul-de-sac*, without adhering to it, prevent any effusion. Professor Chaussier has observed some facts of this kind. Can we believe that, except in these rare cases, perforation of the digestive tube may take place during life, without consequent peritonitis? The anatomists who say they have observed this fact, may they not themselves have occasioned the perforation by pulling the intestinal tunics previously softened or deeply ulcerated?

Inflammation of the intestines may, like that of other parts, determine by suppuration and gangrene.

Suppuration is commonly established at the free surface of the mucous membrane; but in some more rare cases it is beneath it, in the meshes of the laminated tissue, that pus is formed, collects in *foyers*, and constitutes a submucous abscess similar to the abscesses which frequently form in the tonsils. Similar purulent collections are extremely rare in the sub-diaphragmatic portion of the digestive tube. We have witnessed an example in the duodenum: at two fingers' breadth below the pylorus, a tumour projecting into the interior of the intestine, but not visible at the exterior, appeared; it was soft, fluctuating, and of the size and form of a cherry: the mucous coat, raised up and separated at this part, had preserved its white colour. On cutting into the tumour, a white inodorous liquid, of the consistence of cream, was discharged, which presented all the qualities of healthy pus. It was collected in the laminated tissue, the laminæ of which it had separated in such a manner, that the muscular membrane lay exposed below the collection.

We have several times observed in the lowest quarter of the ileum, beneath the mucous coat, when in a state of inflammation, small white maculæ of the size of a lentil, formed by a pearl-coloured liquid; changing its situation, and spreading *en nappe* when the mucous coat was pressed upon. It appeared as if some pus had been effused into the submucous cellular tissue, which had occasioned the formation of a crowd of small *foyers*, in every part where the inflammation had been the most acute, or where the cellular tissue had yielded the most to distention. It is not uncommon to find, in the sub-arachnoidean cellular tissue, purulent collections, appearing like those of which we have just spoken, under the form of small white isolated maculæ, and, like them, capable of being displaced by pressure.

Authors have spoken much of *abscesses*, formed in the *stomach*, and having been discharged by vomiting. I have never witnessed a case of this kind.

Gangrene of the intestines, also, seems to us less common than has been for a long time imagined. Open the different works in which dissections are rela-

ted, and you will find that their authors speak incessantly of *intestines gangrenous* and sphacelated in a great part of their extent; but unfortunately no one amongst them has described the lesion which he regarded as constituting a gangrenous condition. It is, at least, doubtful whether the brown colour of a more or less extensive portion of the mucous membrane, with softening of its tissue, should be considered as a sign of mortification. Of these derangements of the mucous coat we have already spoken.

There are diseases, as typhus fever, however, in which it is not uncommon to find on the internal surface of the digestive canal, real eschars, similar to those of the skin. Sometimes these eschars are formed at the expense of the laminated tissue which constitutes the face of the ulcerations: at such times it is found thickened, black, or rather of a dirty greyish colour, and of a putrescent consistence, like the *detritus* which exists at the surface of wounds struck with hospital gangrene.

Sometimes the mucous membrane itself, when inflamed, terminates in gangrene. An ulcer succeeds to the falling off of the eschar which results from it. It has appeared to us, that gangrene has tended to develope itself more frequently in the centre of the circumscribed and elevated patches of which we have spoken above. We have sometimes been able to trace, in the same subject, the formation of the eschars in the different *phases*. We observe, for example, at the end of the small intestine, oblong elevations of a brownish red, formed by the thickened mucous coat. In other places, a part of these elevations is changed into a hard tissue of a yellowish brown colour; repeated washing and long maceration cannot efface this tint. All those who have seen this morbid appearance, have not hesitated to compare it to the eschars, with which the surface of blisters is sometimes covered. The gangrened portion, moreover, is already partly detached; it no longer shows itself except in isolated points, in the interval of which ulcerations exist; the base of these is sometimes white, sometimes of a deep brownish red, according as the cellular tissue which forms it has, or has not, participated in the inflammation. In some ulcerations, the eschar, detached in one portion, only adheres to their edge by a thin pedicle; other ulcerations no longer present any trace of it. We have only once witnessed one of these eschars in the stomach: the end of the small intestine and the cæcum are their most common seat. Almost every time we have met with them, their formation has seemed to have coincided during life with the mortification of blisters. Were it not wandering from our subject, we might deduce some important considerations from these facts, both on the nature of the disease, and on the mode of treatment proper for it. These we shall make the subject of another work.

We have now passed in review the anatomical characters of inflammation of the digestive tube; the lesions which it presents appeared to us sufficiently distinct, to enable us to establish three stages of this inflammation, in the same manner as M. Laennec has established three stages in pneumonia, according to the different states of the lung. In the first stage there is simply a more or less strong injection of the mucous coat. The second stage is marked by alteration of its texture, whether it be thickened, softened, or exanthematous. This alteration may, or may not, extend to the other tunics. In the third stage the mucous and subjacent tissues become disorganized and ulcerated.

The second and third stages can never be mistaken; but not so with the first. In the same manner as sero-sanguineous *engorgement* of the lungs, supervening, only, during the latter periods of life, may be easily confounded with the first stage of pneumonia; so may the mechanical *stasis* of the blood in the mucous coat of the digestive organs, or beneath it, be mistaken for an inflammation of these parts. We shall endeavour to offer some considerations which may preventus from committing a similar error. Whenever, some hours previous to death, the return of the venous blood towards the right cavities of the

heart, has experienced a considerable interruption, the parietes of the intestinal canal are found more or less strongly injected in several parts. The obstacle to the return of the blood towards the heart may be seated either in the heart itself or in the lungs. In each case, the blood, which no longer penetrates those two organs but with difficulty, reflows towards the liver, which becomes engorged in its turn, and is no longer able to admit that which is brought to it by the vena portæ. The ramifications of this vein therefore remain filled; they receive at the same time a fresh quantity by the arteries until death, and sometimes even after death. Hence proceeds the injection of the parietes of the intestinal canal; this injection is more lively and more common than that of any other part, either in consequence of the number and size of the vessels, or owing to the presence of the liver, into which the greatest part of the blood received by the right side of the heart, even that which is brought to it by the vena cava superior, reflows and accumulates as in a reservoir. If, in fact, as we have seen done by M. Majendie, we inject sulphuric acid into the jugular vein of a living animal, the hepatic vessels are found filled with coagulated blood. It is only when the engorgement of the right side of the heart and of the liver has reached a very high degree, that the other parts are found also injected with blood after death. At such times the skin is marbled with livid streaks; the cerebral membranes are of an intense red; the brain itself is covered with an infinite number of small red points; an enormous quantity of blood streams out from all the parenchmatous tissues; the inter-muscular, sub-serous, and sub-arterial, cellular tissues, are overrun by a multitude of small vascular ramifications, &c.

But the purely mechanical injection of the intestinal parietes itself presents several degrees.

In its mildest degree, the laminated tissue underneath the mucous coat is found overrun by large veins filled with black blood: they give to the stomach, when viewed internally, a marbled appearance: in the intestines they form, by the multiplied anastomoses, numerous arborisations; they exist, in great quantities, in the folds of the small intestines, which, being deeply situated in the hollow of the small pelvis, present, owing to their inclined position, a fresh obstacle to the return of the blood.

This first degree, which consists in an injection of the great vessels of the sub-mucous tissue, must not be confounded with the inflammatory injection which is seated in the vessels of the mucous membrane.

But in a second degree, besides these veins gorged with blood, the laminated tissue presents a crowd of small vascular ramifications which extend in several parts to the mucous coat: at such times this membrane presents, at greater or less intervals, patches of a brownish red, formed by the agglomeration of several almost capillary vessels, strongly injected. When less numerous, they form, in the mucous coat, small red isolated or united points: when more multiplied, they produce long, red, or brown bands.

Sometimes, sanguineous infiltration, true ecchymoses, with or without injection of the mucous coat, are discovered in the laminated membrane.

Finally, in the highest degree of this mechanical injection, the mucous coat exhales blood at its free surface: this we have witnessed in several subjects. Boërhaave had already observed that when the blood which returns from the intestines cannot pass through the vena portæ, owing to its being obstructed, it flows into the intestines.

This sanguineous exhalation, joined with the interruption of the circulation, is equally observed in other parts. The tissue of the lung, the cerebral substance, the parts of the skin deprived of epidermis, become sometimes its seat in individuals labouring under aneurism of the heart. The bronchiæ are often filled with a bloody fluid during the last moments of the life of consumptive individuals, who have experienced a long agony.

These phenomena, exhibited to us on the inspection of the dead body, experience may produce on living animals. By slowly depriving them of life, we see their digestive tube, which is pale or of a rosy white in the ordinary state, becomes injected and strongly reddened. An intense coloration of the intestines may be also obtained by tying the trunk of the vena portæ. This fact was known in the time of Morgagni: he ralates, that after the ligature of this vein, the intestines quickly acquire the colour of cochineal, and that a sanguineous exhalation sometimes take place at their internal surface.

From the whole of the preceding facts, it results that, when any stimulus affecting the intestines has only occasioned their injection, without having yet altered their texture, it is often difficult, and sometimes impossible, to distinguish this inflammatory injection from one which has been purely mechanical. It is necessary, therefore, to attend either to the symptoms which preceded death, or even to the kind of death; to observe the state of the lungs, of the right heart, of the liver, and of the system of the vena portæ: finally, in some cases we must be compelled still to remain in doubt.

Section II. *Adventitious Tissues.—Tubercles.*—We seek in vain, in ancient authors, for an exact description of the tubercles which develope themselves in the parietes of the digestive tube. They have all, at most, been indicated in a vague manner by some. Thus, Bartholin says he found the intestine full of purulent tubercles in an individual labouring under chronic dysentery. Bonet appears to have spoken of them under the name of apostemata. Brunner seems to have regarded them as mucous follicles preternaturally developed. It is somewhat astonishing that they should not have fixed the attention of Morgagni.

Intestinal tubercles are, in fact, one of the most common affections. They exist in the majority of individuals labouring under phthisis pulmonalis. In the majority of cases they only supervene consecutively on the tuberculous degeneration of the lungs: at other times they precede it, and drag the patient to the grave, before any symptom has declared itself in the chest. It is very rare to meet with tubercles in the intestines of individuals whose lungs contain none of them. Of all the parts of the digestive tube, the end of the jejunum and the ileum are those in which tubercles most frequently develope themselves. We have much less frequently met with them in the commencement of the first of these intestines, as well as in the duodenum. More rarely still are they observed in the cæcum, and in the ascending and transverse colon. We have never found them in the other portions of the large intestine: we once only met with an isolated tubercle in the stomach.

Tubercles constantly arise in the midst of the cellular layers which unite together the different coats of the intestine. Rarely existing in the sub-peritoneal cellular tissue, they show themselves most commonly in the midst of the meshes (*mailles*) of the sub-mucous cellular tissue. At their origin, they appear under the form of white points, having scarcely the volume of the head of a small pin. They are perceptible through the mucous membrane, which above them has preserved its healthy state. They become gradually enlarged, and finally acquire the size of a pea. We have never seen them of a larger size. Under such circumstances, they appear under the form of small round masses, of a dull white, generally isolated from each other, and very rarely agglomerated, like pulmonary tubercles. They project beneath the mucous membrane, which they raise up. The internal surface of the intestine around them is most commonly pale or somewhat injected.

By gently passing above them the blade of a scalpel, the mucous coat which covers them may be elevated, issue is given to the teberculous matter; and in the place which it occupied, a small cavity exists, with white, elevated, and round edges, perfectly similar to an ulceration. Sometimes, in the whole ex-

tent of the canal, no other lesions are discoverable than those tubercles, such as we have just described them; they are then in their state of crudity. But in the majority of instances, there exist, at the same time, ulcerations of various forms and sizes, at the base of which the *debris* of tuberculous matter is often discovered. A perfect analogy seems to us to exist between the formation of these ulcerations and that of tuberculous ulcerations of the lungs. In the midst of the parenchyma of the lungs, as well as the intestinal mucous coat, tubercles at first develope themselves, without the tissue surrounding them seeming in any manner inflamed. In the lung, as in the intestine, we frequently see these tubercles exist in the part of this organ which is not inflamed; whilst the parts where we do not meet with them present evident signs of recent or chronic inflammation. To this it may be objected, that where the tubercles are developed a previous inflammation had existed, which, having disappeared in time, had left no other trace than the presence of the tuberculous matter. But this can only be a supposition.

In the lung, as in the intestinal canal, tubercles, in proportion as they become soft, occasion either the erosion and complete destruction of the parietes of the bronchiæ with which they are in contact, or of the digestive mucous coat below which they have taken birth, and eat a rout outwardly. At such times, in the parenchyma of the lung, as at the internal surface of the intestine, a cavity exists, the parietes of which become inflamed, and secrete a purulent matter, the quality and quantity of which are very variable. We have frequently witnessed in intestines full of tubercles, ulcerations which had a very great resemblance to pulmonary vomicæ; like the latter, they represented anfractuous cavities, separated by bands of an irregular form.

In some cases, at the same time that the tubercles raise up the mucous membrane which they tend to destroy, they develope themselves also on the side of the muscular coat; separate its fibres, and come in contact with the peritoneum, which, in the same manner as the mucous coat, ends in becoming destroyed. Hence results a solution of continuity of the intestinal parietes, which remains sometimes filled up for a greater or less time by a tuberculous mass. We have observed a similar disposition.

We have just seen that tubercles may arise and develope themselves without previous inflammation, but we frequently also observe traces of an intense inflammation in the portion of intestine where they exist. It is not rare, for example, to find the base and edges of intestinal ulcerations, in individuals labouring under chronic diarrhœa, sprinkled with tubercles still crude. It even seems that inflammation favours their development: and it is almost solely in this case that they are found pressed and agglomerated together.

If we now consider intestinal tubercles as regards the symptoms which announce them, we shall again find several points of relation between them and pulmonary tubercles. Like the latter, they may, when not numerous, exist a long time without any symptom occurring to lead us to suspect their existence. Thus we have found the intestinal mucous membrane raised up by tubercles still small, and a little numerous, in phthisical subjects who have never had diarrhœa: other individuals, whose intestines are in a similar state, have not constantly diarrhœa, but in them it manifests itself under the influence of the slightest cause; exposure to cold or humidity, and the least error in regimen, produce it.

It is thus that the pulmonary mucous membrane is very easily irritated in persons whose lungs contain a small quantity of tubercles still crude. But these multiplied irritations hasten, in their turn, the discharge of the tuberculous matter either into the lungs or intestines. The diarrhœa does not appear to become considerable and permanent until ulcerations have succeeded to the softening of the tubercles. The formation and development of intestinal tubercles are generally accompanied with very little pain: it is the same also with the ulcerations which succeed them. Many patients affirm that they

have never experienced any abdominal pain, others feel from time to time slight and very supportable colics. Some, however, do complain of tolerably severe pain. After death, no lesion is discoverable capable of explaining these differences.

We have sometimes observed, in different portions of the small intestines, miliary granulations similar to those which develope themselves in the parenchyma of the lungs. On passing the finger over the internal surface of the intestines, we find a crowd of small rough bodies of the size of a millet seed. Their transparence, their, as it were, cartilaginous hardness, distinguish them from tubercles properly so called, which are soft and opaque. Moreover, they are developed in the tissue of the mucous coat, and not below it like the tubercles, as it is easy to verify by detaching that membrane: they come away with it.

Scirrhous and Encephalated Tissue. We have just seen that the stomach and rectum are the two portions of the digestive tube in which tubercles are most rarely developed. They are, on the contrary, these, where the scirrhous and cerebriform, or encephaloid tissue, most commonly appears.

These tissues may arise primitively, either in the mucous coat itself, or beneath it.

When they arise beneath the mucous coat, we observe them, at first, invading the laminated tissue: they may acquire a considerable size, and form even tumours projecting through the parietes of the abdomen, before being propagated either to the muscular coat, the muscular fibres of which may be easily dissected from beneath them, or to the mucous coat, which is found every where white and sound. But, most commonly, if the cancerous tumour be at all considerable, we no longer observe any trace of muscular fibre; the mucous coat ends in becoming disorganized and destroyed, and the internal surface of the stomach then presents an ulcer of a greater or less extent, the edges of which are formed by the mucous membrane, irregularly divided, (*decoupée*) and the base by the scirrhous and encephaloid tissues, in a state of crudity or softening. In proportion as they pass from this state, they become destroyed, and perforation of the stomach takes place sooner or later. But sometimes, as we have already seen, the contents of this viscus are effused into the peritoneal cavity, whence fatal tymptoms arise; sometimes, by a happy artifice of nature, cellular adhesions established between the circumference of the ulcer and a neighbouring organ, prevent effusion from taking place. We have frequently seen the liver and the pancreas form the plug. In the cases of this kind which we have observed, we have never found the pancreas diseased. As for the liver, we have sometimes found its tissue uninjured beneath the greyish or reddish *detritus* covering the base of the ulcer; occasionally we have seen it participating in the cancerous degeneration to the extent of some lines only, beyond which it was healthy. Finally, at other times the disease seemed to have been propagated from the liver to the stomach, which latter organ seemed only to have been secondarily affected, and the parietes of which had been destroyed from without to within.

In a small number of individuals, the cancer primitively invades the mucous coat, which becomes thick, soft, fungous, and at last ulcerated. In this manner cancer of the womb frequently commences by ulceration of the mucous coat, lining the interior of the vagina, and the neck of the uterus. No tumour in such case precedes the ulceration. At other times, the cancer, primarily developed in the mucous coat, shows itself under the aspect of a polypiform tumour, projecting above the rest of the membrane, sometimes to the extent of some lines only; at other times, of from one to three inches, connected with it by a large base, or by a small peduncle. Many of these tumours exactly resemble certain champignons, the long stalks of which support a large capital with round edges. Their surface is commonly rugous and unequal, frequently bleeding; their tissue soft, fungous and very vascular. The mucous mem-

brane around them is most commonly healthy. Similar tumours are found in every part of the stomach; we have seen them implanted round the cardia, oppose the free introduction of nourishment into the stomach, and we have observed them around the edges of the pylorus, obliterating more or less completely that opening. When inconsiderable, and occupying the surface of the stomach, they may exist without in any manner disturbing the functions of that organ. We have found them, after death, in individuals whose ready digestion, and the complete absence of pain at the epigastrium, nausea, eructations, &c. did not admit of even a suspicion of the existence of organic disease of the stomach.

Erectile Tissue.—We have sometimes witnessed, loose (*flottant*,) at the internal surface of different portions of the intestinal canal, small round or oblong tumours, of a brownish colour, attached to the mucous coat by a thin and narrow pedicle, and having, upon an average, the size of a hazel-nut. On cutting and pressing them between the fingers, some black liquid blood is made to issue; and on subsequently washing them, their tissue is observed to be formed of a crowd of filaments, intersecting each other in different directions, and leaving between them interstices of various forms and sizes, where the blood seems to have been effused. The pedicle of these tumours is formed by a prolongation of the mucous coat, which around them is healthy.

These tumours, which present all the characters of the *erectile tissues*, are but rarely met with: and when they do exist, only one or two can be discovered in the whole extent of the canal. Once we have seen the mucous coat of the cæcum present eight or ten crowded together.

In the cases which we have observed, the *erectile tumours* were too small for any symptom to announce their existence. When more considerable, might they not be the occasion of extensive hæmorrhages?

Mélanoses.—Under this name we designate small black tumours which we have several times observed in the great intestine. They are subjacent to the mucous coat, which they raise up; those we have dissected were, upon an average, of the size of a hazel-nut. They were round, of a beautiful deep black, crushed easily under the finger, and were like the matter with which common anatomical injections are made. We have found the transverse colon filled with similar tumours in an individual who for a long time had been subject to an abundant diarrhœa, which alternately appeared and disappeared; the mucous coat was in no wise diseased.

The mucous tunic of the small intestine, and of the cæcum, is sometimes found covered by a truly infinite number of small black points, of scarcely the size of the head of a very small pin, and which may be somewhat justly compared to the hairs of a beard recently shaved. We find them, most commonly, crowded together, so as to form by their assemblage round or oval patches, on which the white mucous coat appears as if penetrated by an infinite number of these small spots; their colour may be made to disappear on slight friction: the mucous coat beneath them presents a small lacuna, with a white edge and base.

These black spots sometimes cover the mucous coat to the extent of several feet. It is in the lower quarter of the small intestine that they are most frequently observed. We have never found them in the stomach, and they are very uncommon in the great intestine below the cæcum. They exist in all possible conditions of the mucous coat. We met with them so often during the summer of 1821, in individuals who had died of different diseases, that we are much inclined to think that no morbid symptom is induced by them. Our friend and colleague, M. Descieux, has also observed them in a very great proportion of the sheep killed for the market, the intestinal canals of which he had occasion to examine, towards the end of the autumn of 1821. But what is a remarkable circumstance, we found them but rarely after the commencement of winter!

If we endeavour now to determine the nature of these black points, we may remark, first of all, that they have a disposition similar to that which the mucous follicles present, as so well described by Leger nearly two centuries ago. Like these follicles, they are observed grouped around each other, and forming, by their agglomeration, circular, oval, oblong, angular, &c. figures. Like them, they are found more numerous the nearer we proceed in our examination to the cæcum. Is it not allowable to imagine, from the preceding considerations, that these black points are nothing more than the result of a morbid secretion of the follicles?

Serous Cysts.—We have frequently found these cysts developed beneath the mucous coat, both in the small and large intestines. The major part of those which we have met with were of small size. The largest we have had occasion to dissect was of the size of a common walnut. Primitively developed in the laminated tissue, subjacent to the mucous coat, it had extended between the fibres of the muscular coat, and formed a remarkable projection beneath the peritoneal coat.

If we are to believe authors, this species of cysts have, under some circumstances, undergone a prodigious development. Bonet, Dehaen, and Peter Frank, have related cases in which these tumours had been mistaken for ascitic dropsies; the operation of paracentesis was performed: an enormous quantity of serosity issued from the abdomen, and it was not until after death that the true nature of the disease was discovered.

Several authors have likewise spoken of vesicles full of a serous liquid, developed at the free surface of the mucous coat, to which they were adherent. Bonet observed one of these vesicles, seated on the pyloric circle, and projecting to the extent of half a finger's breadth into the cavity of the duodenum. The mucous coat of the stomach, in its whole extent, presented several others of them, some of which were whole, and others lacerated. Bonetus gives them the name of hydatids.

Œdema of the Intestines.—Not only do serous cysts develope themselves at the free or adherent surface of the mucous coat of the intestines, but also the laminated tissue subjacent to that membrane may become the seat of a real serous infiltration. We have several times observed this œdema of the sub-mucous cellular tissue, the existence of which had been denied by Bichat. We have met with it more especially in dropsical subjects, who had laboured under diarrhœa, in aged people, who, after having languished for a considerable period in the hospital, had finally fallen into adynamic state: and in patients exhausted by chronic organic affections. We observed it particularly well marked in a female who had laboured under encysted dropsy of the ovary.

We have also witnessed a considerable quantity of serosity effused between the lamine of the cellular tissue subjacent to the mucous coat, lining the internal surface of the gall-bladder.

Adipose Tissue.—We have only once met with a fatty tumour in the substance of the parietes of the digestive tube. It existed towards the middle part of the ileum, and was of the size of a hazel-nut. Developed beneath the mucous coat, which had preserved its natural appearance, it presented a uniformly smooth surface; but when the mucous coat covering it was removed, it presented a clustered appearance (*un aspect comme pelotonné.*)

It was perceptibly formed of a numerous assemblage of small oval or spheroidal vesicles, separated by slight furrows, traversed by vessels; each of these vesicles contained fat. A narrow pedicle kept the whole tumour adhering to the laminated tissue.

SECTION III. *On the state of the digestive tube in the different fluxes, known under the name of diarrhœa, dysentery, and lientery.*—These affections have been for a long time looked upon as diseases entirely independent of inflammation of the intestines. Many ancient authors have, in truth, spoken of the ul-

cerations seated at the internal surface of the digestive tube in chronic diarrhœa, but they consider them as an effect of the diarrhœa. Such was the opinion of Boerhaave, and of Van Swieten, his commentator. We have already seen that such also was pretty nearly the idea of Stoll; and it may be likewise found in the writings of Hippocrates. He was not ignorant that in dysentery the intestines are the seat of more or less deep ulcerations, but he regarged them as being occasioned by degenerated bile and phlegm.

Is relaxation of the bowels constantly connected with an inflammatory condition of the mucous coat of the intestines? This is a very important question in a therapeutical point of view. We shall endeavour to answer it by presenting a summary of the numerous cases which we have collected on the subject.

We have several times found, in individuals who had laboured under recent or chronic diarrhœa, the internal surface of the intestinal canal very pale in its whole extent, the mucous coat having preserved its thickness and ordinary consistence. Patients weakened by long organic diseases, hydropics, old people under that state of debility denominated by the ancients cachexia, and who succumbed after having laboured, for a longer or shorter time, under considerable looseness, frequently present that state of the intestinal canal. Their stools are copious, very liquid, purely watery; surpassing by much the quantity of liquids taken in. We have sometimes found, in cases of this kind, a well-marked serous infiltration of the sub-mucous cellular tissue.

Morgagni has transmitted to us the history of several cases of diarrhœa without inflammation of the mucous coat of the intestine. He has seen several individuals labouring under that disease die in a short space of time, exhausted by the excessive abundance of their alvine evacuations. In these atonic diarrhœas, the intestinal parietes frequently become much extenuated; the fleshy coat, especially, experiences a true atrophy, and occasionally seems, to be only composed of some pale and small fibres, widely separated from each other. Bonet had already remarked this fact. "In chronic diarrhœa," says he, "we find the intestines as thin as a cobweb." The intestine, in this state, seems to be unable to fulfil its functions; chylification is but imperfectly performed, absorption becomes much less active, and the food is frequently voided as when taken. This is what the ancients designated under the name of lientery.

The mucous coat of the intestines may then, like many other textures, become the seat of a much more abundant secretion than usual, although it presents no trace of inflammation. It is thus that, during convalescences from chronic maladies, the exhalation of serosity into the subcutaneous cellular tissue is frequently augmented. It was not, therefore, without reason that Sauvages designated under the name of *flux*, a particular class of diseases.

Since truly atonic fluxes may exist, it follows that a strengthening and astringent treatment is, in these circumstances, the only proper plan to be pursued. Thus the œdemata, of which we shall presently speak, may be dispersed, either by the employment of topical stimulants, or by the internal administration of tonic medicines.

In other individuals, we find the mucous coat of the intestines equally white in its whole extent; but beneath it numerous tubercles, or other adventitious tissues, exist. They provoke diarrhœa, either by the sympathetic irritation which they determine to the mucous membrane covering them, or by stimulating by their presence the muscular coat, the contractions of which consequently become more rapid and more intense. It is in this manner that the different adventitious tissues, developed in the parenchyma of the lungs, provoke an habitual irritation of the mucous membrane of the bronchiæ; but most commonly, the diarrhœa in this case does not appear to become permanent and considerable, until the period when the tubercles, having become softened, inflame and ulcerate the mucous coat.

It is, moreover, indubitable, that in a very large majority of cases, the intestines of individuals labouring under diarrhœa, whether complicated or not with dysentereric symptoms, present evident marks of phlegmasiæ.

This phlegmasia may be seated in the small or in the large intestine.

In the small intestine, it frequently only exists to the extent of some finger's breadth above the ileo-cæcal valve; at other times a larger portion of the small intestine has laboured under it, where it either appears under the form of a simple injection of the mucous coat, alteration of its texture, red or white softening of its tissue, or ulceration.

Numerous cases have apprised us that acute or chronic diarrhœa is the frequent result of isolated inflammation of the small intestine, without the large participating in it in any manner. We insist on this fact, because M. Broussais has laid down, as a general principle, that enteritis is accompanied with constipation, and that diarrhœa only supervenes when enteritis is complicated with inflammation of the colon, (*colite.*)

Of the three portions of the great intestine, the cæcum is that which, in diarrhœa, most frequently presents one of the three degrees of inflammation; after that the colon; and, lastly, the rectum.

The symptoms, the *ensemble* of which constitutes dysentery, are not connected with any particular state of the intestines. The tenesmus alone announces that inflammation exists in the rectum. As for the bloody and glairy stools, they appear in individuals whose intestines present lesions analogous to those which are observed in other patients whose stools had always been purely watery.

We once found a somewhat considerable number of ulcerations in the ascending colon, in a phthisical patient, who, after having previously laboured under diarrhœa, had not felt it for a long period, and had even become constantly constipated. It may be conceived that this may be the case, when the ulcerations are small, by no means numerous, and when neither the edge nor the base is inflamed. In fact, at such times they can only, like tubercles, produce a flux by the sympathetic irritation of the mucous coat surrounding them or of the muscular coat.

The different states which the digestive tube may present in diarrhœa being well known, can they be distinguished during life from the symptoms which manifest themselves? This, in many cases, is possible. Thus, if pains of the abdomen are observed, if the skin is burning hot, the pulse frequent, if the dejections are slimy, membraniform, or bloody, we may be satisfied that the intestine is the seat of more or less intense inflammation.

We may add, however, that nothing is more common than the absence of every species of pain in cases where numerous ulcerations cover the internal surface of the intestines, whether of the ileum, cæcum, or colon. How frequent, also, is it, on the other hand to see patients complain of violent pains in the abdomen, although the digestive mucous coat is not the least inflamed. Is not this the case, as the success of the treatment confirms, in lead-colic, which is cured by the employment of the most active drastics, in the colics termed nervous, which frequently yield to eminently stimulant medicines, and in those which are owing to accumulation of flatus and of fæcal matters, and which are treated with so much advantage by repeated purgatives? Stoll has cited a remarkable case of syphilitic intermittent colic, which yielded to the use of corrosive sublimate.

We have already seen that intestinal tubercles may arise, become developed and softened, without any pain indicating their presence.

The character of the stools is not always itself a certain sign by which we can recognise inflammation. Sanguineous evacuations have been observed to take place *per anum* in individuals whose intestinal mucous coat was found sound after death. These passive hæmorrhages are analogous to those which take place in many dropsical individuals, at the internal surface of the serous

membranes of the chest and abdomen; they are similar to the hæmorrhages of which the skin, the cellular tissue, and the synovial membranes, become the seat in scorbutics.

The serous dejections, resembling water, coloured yellow or green, manifest themselves equally in all possible conditions of the digestive tube, in the cases where it is ulcerated, and in those in which its parietes are pale, thin, and œdematous (*infiltrées.*)

When even ulcerations exist in the intestines, ought they to be regarded as a constant obstacle to the employment of tonic and astringent substances? They present such a great variety in their nature, that it seems the same method of treatment cannot agree with all.

The white, grey, or brown colour of the base, the nature of the secretion which takes place there, the want of, or the considerable thickening of the laminated tissue which forms it, the appearance and disposition of their edges, the different degrees of consistence, of thickness, and of colour, of the mucous coat which constitutes them, the separation of this membrane to a greater or less extent, its state in the spaces between the ulcerations—are they not so many circumstances which seem to demand a multiplicity of modifications in the treatment? We may thus easily explain how any curative method succeeds very well in one case, and completely fails in another. We have seen, for example, several diarrhœas yield to the decoction of catechu; we have seen others increase, and become aggravated during the administration of this medicine, although in both cases the symptoms were nearly the same, and the patients placed in nearly similar general circumstances; the major part were consumptive individuals. It would frequently be of great importance, could we, in the same portion of intestine, apply an astringent or tonic substance upon the ulcerations, and cover with emolient applications the spaces which separate them, and reciprocally. In this manner the Surgeon acts in the treatment of several ulcers situated on the surface of the body. He heals them by endeavouring to keep up inflammation to a certain degree, above and below which the disease cannot proceed towards resolution. Is it not again by the employment of topical astringents that many chronic opthalmiæ are cured? Is it not also by the employment of resinous substances that chronic phlegmasiæ of the mucous membrane of the lungs and urethra may be very successfully treated? We have very frequently seen M. Lerminier have recourse, with marked advantage, to a slightly stimulant treatment towards the end of acute pneumonia, having a tendency to pass into the chronic state.

Finally; in order to add fresh weight to these considerations, we might invoke the authority of the ancients, who, in diarrhœas and chronic dysenteries, made a frequent and successful use of many astringent substances, given under different forms.

We shall not suffer ourselves, however, to accumulate observations for the purpose of elucidating these important questions, but conclude with the following quotation from Mushenbroek:—

"*Pauca experimenta nos confidentes reddunt, audaces, gloriosos; multa incertos; plurima denique, ac humanam ferè sæperantia patientiam ad aliquid concludendum nos eminùs præparant.*"*

---

* The following is an extract from the "*Report made to the Section of Medicine of the Royal Academy of Medicine,*" *by M. M. Chaussier and Hippolyte Cloquet, on the preceding Mémoire;*—"En somme, Messieurs, nous avons trouvé dans le Mémoire qui nous a été soumis, les peruves d'un grand éloignement pour tout esprit de système; il est propre a donner de son auteur une très favorable idée, parle soin assez scrupuleux que méritoire, avec lequel celui-ci a

2. *Leeches.** Leeches should not be much handled prior to their application. If the weather be cold, they are liable to become torpid, and should be warmed by breathing on them.

Leeches may be applied by means of wine or cupping glass: It is useful, in either case, to put a piece of stiff paper to the bottom of the glass, to which they are otherwise apt to retire; or, if they are required on a particular spot, a small glass tube, four or five inches long, and just large enough to admit the body of the leech, may be employed. If the leech remains torpid during the process of sanguisuction, a drop or two of cold water sprinkled on it will arouse it again into action. The best methods of suppressing hæmorrhage, which sometimes succeeds to their application, and is occasionally very troublesome, when all the simple means, such as felt, starch, puff-ball, &c. have failed, are to apply the spirits of turpentine, or the muriated tincture of iron; or, in failure of these, to insert a piece of lunar caustic, (the point being scraped very fine,) into the puncture; or, lastly, a weak solution of tartarized antimony has lately been recommended as very efficacious. Dr. Price says that in order to preserve the leeches, they should be suffered to retain the blood, and merely be thrown into a jar of fresh water. In the course of a month or two, they will become firm and healthy, and able to perform their functions again; but, if the time cannnot be spared for their recovery, he prefers what is called *stripping them*, to making them disgorge the blood by means of salt. It seems that if the blood is carefully squeezed from the leech, it is capable of resuming its functions immediately.

3. *Meningine.* The farther we see into the animal economy the more we shall be convinced of the intimate sympathy (or whatever name the connexion may receive) between the alimentary tube and the sensorium. Dr. Scoulton of Metz, has published in the Journal Universel des Sciences Medicales some anatomico-pathological researches on this subject, for the purpose of illustrating the connexion between irritation of the mucous membrane of the intestines and the pia mater. He thinks that diseased states of this last-mentioned delicate membrane have been often overlooked, in consequence of the changes in its structure not being very conspicuous to the hasty and superficial observer. We conceive, however, that the changes of structure in this tissue are more easily detected than those in most other parts of the body. In a state of health this web is perfectly transparent, thin, and colourless, without adhesions. Any deviation from this state must therefore be one of disease. It is no doubt desirable, but seldom possible, to have, a healthy brain to contrast

---

fait ses observations; la forme d'ailleurs répond ici au fond, et nous concluons à ce que le travail dont nous venons de vous rendre compte soit honorablement déposé dans vos archives, jusqu'à ce que l'Académie s'occupera de compléter le nombre de ses membres, le nom de M. Andral, fils, devra être porté sur la liste des candidats.

"Paris, le 30 Juillet, 1822.

"Signé CHAUSSIER.
HIPP. CLOQUET, Rapporteur.

"Certifié conforme par le Secrétaire de l'Academie,
"BECLARC."

* Dr. Rees Price.

with an unsound one when we are prosecuting post-mortem researches. This was the plan pursued by Wenzel in examining the brains of epileptic patients. Dr. S. thinks that all parts of the intestinal canal do not sympathise equally with the brain. The stomach and small intestines possess a much closer affinity with the meninges than the great intestines. So it is with respect to the different coats of the intestines. While inflammation of the mucous membrane gives rise to corresponding disturbance in the pia mater, this last remains free from all sympathy in peritonitis. When the mucous membrane of the stomach or small intestines is inflamed, Dr. S. has observed the vessels of the pia mater injected with blood, forming red patches, and sometimes amounting to extravasation. These appearances are chiefly found in the anterior and lateral parts of the brain—unless the abdominal inflammation be very violent, in which case nearly the whole of the pia mater is affected—its minute vessels carrying red blood, and giving rise to effusion and adhesions. Dr. S. thinks that these views are likely to bear on and elucidate many of the phenomena of apoplexy, on the principle of every inordinate excitement of the stomach being communicated to, and, as it were, repeated in, the brain, thus occasioning determinations of blood to the head, and rendering its vessels gradually more debilitated and ready to give way under any particular increase of action.

4. *Poisoned Wound.** Mr. Wansbrough, of Fulham, assisted in examining a body in the month of June, 1822, the corpse being very obnoxious. On the same day he pricked his finger with a thorn, which was followed by great pain, inflammation, and swelling, not only of the finger, but of the hand and arm as far as the elbow. The distressing symptoms continued nine days, during which there was excessive derangement of the nervous system, the powers of the stomach being almost entirely suspended, and the tongue covered with a thick white coat. All medicine was rejected, except calomel, which acted on the bowels, and kept them in an open state. He slept but an hour each night, from twelve till one. There was scarcely any fever during Mr. W's illness—but there was a copious flow of saliva from the mouth, not the effect of the calomel. In three weeks he was able to seek change of air, and a residence of a few weeks at the sea side completed his recovery. The attack was succeeded by a fall of the hair from the head. From all the circumstances we have some doubt if the accident was owing to the absorption of morbid poison at the time of the prick from the thorn. It is impossible, however, to be certain on this point. We congratulate Mr. W. on the improved state of health which succeeded this shock, and which has enabled him to conclude his paper with the consolatory reflection that—"out of evil proceedeth good."

5. *Abortion.*† Notwithstanding the redundancy of our population, it is still the duty of the accoucheur to bring as many living children into the

* Mr. Wansbrough. Med. Repos. No. 113.

† Mr. H. W. Ward. Med. and Phys. Journal, No. 289.

world as possible; and consequently the means of lessening the frequency of abortion are very desirable acquisitions. It appears to have been the opinion of the late Sir Richard Croft that diarrhœa generally precedes or accompanies abortion. Dr. D. Stewart, an able accoucheur and lecturer, seems to think irritation in the bowels a very common *cause* of the accident. To this latter gentleman Mr. Ward admits his obligation for a knowledge of the efficacy of opiate suppositories in preventing the death of the fœtus in utero. Some time ago Mr. Ward was called to attend a lady who was in the fifth month of pregnancy, but without any pains warranting the idea of labour. He was informed, the patient had never borne a living child, but had aborted three successive times, at the period of gestation abovementioned. The present symptoms resembled those experienced on former occasions. A diarrhœa had existed for four days. An aromatic cretaceous mixture was ordered, with opium; but in less than eight hours a dead fœtus was expelled. "The placenta was retained, as is common in such cases, longer than is usually the case in natural labours, and after waiting an hour, he extracted it."* No untoward symptoms occured, and the patient recovered.

Our author was again called to the same patient in the fifth month of pregnancy, and labouring under precisely the same symptoms as before detailed. A laxative draught with castor oil was ordered, which produced no alteration in the nature or quantity of the alvine evacuations, and therefore the cretaceous mixture with opium was ordered. Still the symptoms continued. The cretaceous mixture was now laid aside, and opiate suppositories were had recourse to but without the wished for effect. Large and repeated doses of opium were therefore exhibited by the mouth, with the view of allaying irritation. This measure had the desired effect of subduing the bowel complaint, and the patient went through the usual term of utero-gestation, with final delivery of a living child.

Viewing intestinal irritation as an occasional cause of abortion, we cannot object to the measure here enforced by Mr. Ward.

---

6. *Amenorrhœa.* Dr. Lavagna has recently published, in a Milan Medical Journal, an acount of his success in provoking the menstrual discharge by means of injections into the vagina, composed of ten or twelve drops of the volatile alkali to two table spoonfuls of warm milk. This injection he uses three or four times a day, and in every case it brought on the catamenial discharge in the course of five or six days after the commencement of the remedy. The injection produces generally a disagreeable sensation in the vagina, but in no instance was it productive of any bad consequences. Fourteen cases are related in illustration.—*Rev. Med.*

---

7. *Epilepsy.*† A soldier who had become paralytic of the left side while

---

* If the placenta is detained in utero, in cases of abortion within the sixth month, we really cannot easily conceive how accoucheurs can introduce their hands so readily as they say to extract the secundines. If the placenta be merely in vagina, it is another affair.

† Dr. Carter. Med. Repos. No. 113.

serving in the Peninsular war, was seized with epilepsy on Christmas eve, 1820, for the first time. At first the fits were very frequent; but by tonics combined with occasional aperients and local bleedings, they were rendered less frequent. Pills of croton oil acted very powerfully on his bowels, and the paroxysms were reduced to one in two or three weeks. But the croton oil lost its power, and the man became affected with pectoral complaint in addition to his other ailments. At this time, (31st October,) Dr. Carter ordered the tartar emetic ointment to his chest, which produced sloughing of the integuments and a profuse discharge. The eruption also spread over the whole of the trunk, and caused excessive irritation for several days—they died away. The epileptic attacks did not return; but in about two months he had some premonitions, which induced Dr. Carter to order leeches to the temples, and the application of the ointment to the left arm, as he would not consent to have it again on the chest. It produced great irritation and swelling in the whole arm, with profuse discharge. At the end of five months, when the report closed, there was no return of epilepsy. We have no doubt that this suspension may be fairly attributed to the antimonial irritation and consequent discharge. We are glad to learn that Dr. Carter is prosecuting his inquiries respecting the utility of antimoniated ointment in epileptic affections.

8. *Tic Douloureux.** We are rejoiced to see that accounts still continue favourable to the reputation of carbonate of iron in this dreadful disease. In a late number of our respected cotemporary, Dr. Crawford of Bath, has communicated the particulars of two cases of neuralgia treated with the remedy in question—one in his own practice, the other in that of Dr. Davis of Bath. The first case was that of a lady who became affected in the left side of her face at the age of 69 years. The disease was moderate at first, and the intervals between the paroxysms of considerable extent; but after some time the disease became greatly exasperated, and the cessations from suffering of short duration. The complaint was subdued by the arsenical solution, and the patient remained free from sufferings for two years. Then a slight relapse, and again relief for four years by the same remedy. At the end of this period the enemy renewed his attacks, but arsenic no longer availed. Dr. Crawford then commenced with carbonate of iron in scruple doses three times a day, gradually increasing the dose to a drachm. In three weeks from the commencement of this plan of treatment the disease gave way, and has not yet returned.

Dr. Davis' patient was also a female, 65 years of age, affected with the diseases in the right side of the face. She was curied by the carbonate of iron in a fortnight—two scruples night and morning.

Mr. Thomson, of Sloane Street, has communicated to Mr. Hutchinson the particulars of some cases which are in favour of the remedy. We sincerely hope it may retain the reputation it has already acquired.

9. *Antimoniated Ointment in Agues.*† During the winter of 1815, Dr.

* Med. and Phys. Journal, February 1823.

† Graaffe and Walker's Journal, 1823.

Pommer had a great number of intermittents under his care, while the army of Wertenburgers was quartered on the Loire and Allier. As the bark often failed, he was led to try the effect of bringing out crops of pustules on the abdomen with the tartarized antimonial ointment; and, to his surprise, in every instance the fever, whether tertian, quartan, or irregular intermittent, gave way soon after the pustules were completely formed.

We have, of late years, found this ointment so useful in many anomalous affections, that we consider it a very important item in the Methodus Medendi. The following is the form which we have found most useful and quick in operation;—

R.—Axungiæ, ℥j.
Antimon. Tart. ʒiij.
Tinct. Lyttæ, gt. xx.

Misce fiat unguentum. A sixth part of the above is generally sufficient to be rubbed on any part every night, and in three or four frictions a copious crop of pustules will appear. In several instances it has brought out many pimples on the scrotum when rubbed on distant parts of the body.

---

10. *Destruction of a Portion of the Spinal Marrow.** This case is so remarkable that it will be entitled to a place among the "*cas rares*" of the next Dict. des Sciences Medicales.

A gentleman, 44 years of age, was the subject. He had led a very debauched life, and at the age of 34 first began to experience pain in moving his arm, attended with uneasy sensations at the top of the spinal column. These symptoms increased, and in January 1821, the use of the member was lost. The dorsal part of the spine now became curved, and the shoulders, particularly the right, raised. Cauteries, moxas, blisters, without benefit. M. Rullier was consulted on the 5th October, 1822, and found the patient emaciated and weak, the size of the head contrasting with the wasted trunk —the spine curved—no loss of voluntary motion, except in the upper extremities. The patient could walk about, even till nearly the period of his death. The arms were permanently and rather painfully contracted—the forearm being in a state of involuntary pronation, the fingers fixed, but more firmly during sleep. Notwithstanding this state, the patient could still write his name by a movement of the whole arm. The hands were morbidly sensible to the *slightest* external impressions, and the arms painfully so to *forcible* impressions *ab externo*. The intellect was unaffected; but his sleep was disturbed by uneasy respiration, palpitations, and painful stitches in the chest. There was cough and cream-like expectoration—hectic fever—bowels constipated—violent pains in the lumbar region; the breathing very much embarrassed during the febrile paroxysm. The venereal appetite was unimpaired till the last—indeed it appeared to be unnaturally excited. On the 31st October, 6 days after M. Rullier first saw the patient, death put a period to his sufferings.

Dissection. The body was opened 36 hours after death, in the presence of Magendie, Piedagnel, and Leconteux. The chest and upper extremities were in a state of the most complete marasmus—the legs and feet œdematous. The upper part of the dorsal spine presented a slight salient curvature backwards and to the right, which raised the corresponding shoulder. The rest of the back appeared natural. The brain was sound, but contained much

---

* M. Rullier, and M. Magendie, Journal de Physiologie.

water in the ventricles, which seemed to drain into the spinal arachnoid cavity when the body was raised erect. There was nothing about the cerebellum which indicated the salacity of the patient during life. The cavity of the spine was laid open throughout its whole extent, by removing the spinous processes and plates of the vertebræ. The medulla spinalis suffered no compression, but only contorted itself in conformity with the spinal column in the dorsal region. The arachnoid cavity contained much serosity. The spinal marrow, examined from behind, appeared in its natural state, as far as the 4th pair of cervical nerves. The two inferior thirds of its dorsal portion also seemed sound; but a remarkable alteration presented itself between these two parts and corresponding to the eighth or ninth pair of nerves. It was soft even to fluidity, so that it flowed about, according to the position of the body. The coverings being slit open over this portion, a quantity of fluid ran off, mixed with flakes of medullary matter. The parts then presented to their view an elongated cavity, filled with a greyish red fluid, in which were dispersed a great number of extremely thin capillary vessels. The medullary bands connected with the corresponding roots of the spinal nerves could scarcely be distinguished in the anterior part of the altered portion. On the anterior face of the spinal marrow, this disorganization was not near so great. The medullary bands corresponding to the reticulation of the origin of the anterior branches of the spinal nerves were apparent, and offered no interruption throughout their whole length, with the exception of the left, which was altered.* They were traced throughout the whole extent of the marrow as far as the medullary tissue, whence they derive their origin. The portions of medulla spinalis above and below the part now described, showed nothing worthy of observation.

Dr. Magendie has made many interesting remarks on this curious case. Here, says he, we see a man enjoying almost to the last hour great moral energy, powerful generative faculties, a free use of his lower extremities, and *feeling* in the upper ones, yet with the loss of nearly a third of the spinal marrow! The communication between the cerebral and dorsal part of this marrow was apparently only by the investing membranes; for there remained only a thin layer of white substance scarcely two lines in breadth, and that too, very probably, altered in structure. There was, therefore, an almost complete isolation of the superior and inferior parts of the marrow—and that for a space of six or seven inches. Yet the will exercised its influence over the lower extremities—the imagination stimulated the gential organs, and these transmitted to the sensorium the lively emotions of pelasure. The great sympathetic nerve was not, he thinks, the medium of communication between the upper and lower portions of medulla spinalis; for all sections or even compressions of the narrow intercept the determination of the will relatively to the motions, and render the parts which receive their nerves below the point compressed insensible. The thin layer of medullary matter then, and the membranes only remained. The contraction of the upper extremities, with a continuance of sensibility, deserve to be remarked; for the posterior portions of the marrow, where the sensibility particularly resides, had disappeared from all the pairs of nerves which supply the brachial plexus. Thus the sensibility of the arms could not have had its usual source; viz. that which is connected with the posterior roots. In short, M. Magendie seems at his wit's ends to reconcile this piece of pathology with his former physiological experiments—and as M. Rullier says, "it is evident that we have still much to learn respecting the functions of the spinal marrow."

* The anatomical description is very confused in this part of the original.

11. *Extirpation of the Thyroid Gland.** Success does not necessarily warrant an operation—we mean, success in one or two instances. A man recovered after the shaft of a gig had run through his chest, and pinned him to a wall; but not one in 500 would recover under such circumstances. In the case of bronchocele, we do not think that any thing can warrant extirpation:—for if the gland be not very large, such a terrible operation ought not to be thought of; and if it be very large, the hæmorrhage must be dreadful, and leave scarcely a ray of hope for the patient.

It has been stated, however, by Hedenus, of Berlin, that he has operated *successfully* in six cases—one of which he has given in detail. We confess we are somewhat of Wickmann's way of thinking, who says that to attempt to extirpate a Bronchocele, or scrofulous thyroid gland, is nothing else than literally and in good earnest to cut the patient's throat. Hedenus observes that he never was less than half an hour in performing this operation. In the case detailed, he was an hour and a half, and was obliged to tie 63 vessels. After all, there was great hæmorrhage from innumerable vessels which the ligature could not command.

The patient was a young man, 21 years of age, of scrofulous constitution, who had had bronchocele from his youth, and which had now attained the size of a skittle-ball, covering the whole of the fore part of the neck, from the os hyoides to the manubrium sterni, and on both sides pushed back the sterno-cleido-mastoid muscles and parts adjacent. Its circumference at the base was fourteen inches;—its transverse diameter seven inches. It was firm, tense, and heavy; the surface abounding with varicose veins. It was attached firmly to the larynx, and encroached upon the trachea, exciting a distressing rattling respiration, with threatening of suffocation, especially on quick walking, or ascending stairs. He was operated on in the theatre of the hospital at Berlin, on the 8th October, 1800, in the presence of numerous spectators.

"The patient was laid on a mattress. I considered the recumbent posture as most convenient to the operator, and comfortable to the patient. I then divided the skin in a longitudinal direction with the convex edged bistoury from the os hyoides to the top of the sternum: not being able by this means to form any flap, I dissected back the skin and platysma myoides on both sides from above downwards, so as to form a flap of two inches, turned back on either side. I then saw the sterno hyoid and sterno thyroid muscles much increased in size, and firmly fixed to the whole tumour, and destitute of the usual aponeuroses: these I endeavoured, for the sake of sparing them in the operation, to dissect and separate from the swelling. Scarcely had I dissected away a quarter of an inch, when blood streamed in great quantity from numerous small arteries, which could neither be tied on account of their minuteness, nor restrained by any styptic application, since their mouths were retracted and hid beneath the strong and firm aponeurosis which invested the tumour, so that they could not be reached or withdrawn. I gave up, therefore, the attempt to separate these muscles, and came immediately to the resolution of cutting them through at their points of attachment above and below, and removing the included portions with the tumour. I next, continues our author, separated the swelling above and below, from the sterno cleido mastoid and omo-hyroid muscles, as also from the jugular veins and carotid arteries (which were intimately connected with the tumour by cellular membranes,) until I freed them as far as the point where the thyroid arteries come off: I then tied both the superior and

* Graafe and Walther's Journal. Quarterly Journal of Foreign Medicine, No. XIX.

inferior thyroideal arteries of either side, close to the tumour, and on account of the free anastomoses, used the double ligature, dividing the vessels in the space between. The deeper I carried my dissection now the more serious did the operation appear, since at every cut of four or five lines I was obliged to tie two or three arteries; and these ligatures, on account of the size of the tumour, and the deep situation of the vessels, were very difficult, and required great care.

"When I had, with the greatest caution, dissected to the base of the tumour, which was firmly fixed to the thyroid cartilage, and the three upper rings of the trachea, on every side so great a number of arteries presented themselves, for the most part of the diameter of the radial or digital arteries, that I could not cut a line or two without dividing two or three of them. Under these circumstances, and as the patient, notwithstanding the speedy ligature of the arteries (effected partly by means of the artery forceps, partly by the needle and thread,) had already lost a very considerable quantity of blood, I hesitated not, that I might bring the operation to a more speedy close, and spare as much as possible the loss of blood, to adopt at once the method since recommended by Brunninghausen, namely, to tie the base of the swelling, and then with the bistoury to extirpate the tumour above it. I used for this purpose a blunt pointed aneurismal needle, armed with two four-threaded ligatures, and while I directed the tumour to be pulled upward, passed the needle through the middle of its base, and drawing the ligatures through, I tied one below, the other above, as firmly as possible. However, that I might perfectly command the bleeding, I passed also a third ligature around the whole circumference of the swelling, and extirpated the tumour now without any bleeding from the parts included in the ligature. I now cleaned the wound from blood with a sponge, that I might see if any important vessel was yet bleeding; and as this was not the case, there being only an oozing from the small vessels of the wounded surface, I placed the ligatures over the lips of the wound, and fastened them there by means of plaster. I sprinkled the whole wounded surface with powdered gum arabic, and laid on this agaric wet with Theden's vulnerary water, and filling the remaining cavity of the wound with charpie, I brought the lips of the wound as much as possible together by adhesive plaster; over the plaster I laid dossils of lint and compresses wet with vinegar, which were renewed every six or eight minutes, the whole was secured by a bandage."

Considerable hæmorrhage ensued, but was ultimately restrained. Great symptomatic fever and other bad symptoms followed, which nearly proved fatal. He was discharged cured (as is said) on the 24th of the succeeding month.

We think, after giving the steps of this operation, few will be inclined to follow the example of Dr. Hedenus in this country.

---

12. *Nervous System.** M. Flourens has made deep researches and many experiments on the properties of the nervous system—or, in other words, on sensibility and irritability. On these researches and experiments, Portal, Finel, Cuvier, and others, have made a favourable report to the Academy of Sciences. A full translation of the report is given in our respected cotempo-

---

* M. Flourens. Journal Comp. March 1823. London Med. and Phys. Journal, June, July.

rary, the Medical and Physical Journal for June of the present year, to which we refer for particulars. We shall here, however, dedicate a page to the conclusions drawn from the experiments and researches.

"According to M. Flourens, there are two properties essentially distinct in the nervous system; the one to excite muscular contraction, the other to perceive impressions. The object was to determine experimentally what parts of this system serve exclusively for sensation; and what, on the contrary, serve exclusively for contraction.

"It is evident that the trial of each part could alone ascertain its property. M. Flourens has therefore subjected to trial, separately and in turn, the nerves, the spinal marrow, the medulla oblongata, the tubercula quadrigemina, the cerebellum, and the cerebral lobes. From these experiments, thus chalked out, it follows—

"1st. That the nerves, the spinal marrow, the medulla oblongata, and the tubercula quadrigemina, are capable of exciting muscular contractions.

"2d. That the cerebral lobes and the cerebellum are not capable of exciting them. Haller and Zinn had formerly noted the impassibility (insensibility) of the upper layers of the cerebral lobes; Lorry, that of the corpus callosum; M. Flourens has, for the first time, observed this insensibility in the whole of these lobes, in the cerebellum; and has been the first to fix the limit at the tubercula quadrigemina.

"The irritation of a nerve, separated from the nervous centres by section or ligature, is confined to the excitement of abrupt and partial contractions in the muscles to which this nerve is distributed. The nerve, therefore, excites properly only contractions.

"The spinal marrow being cut successively above the posterior enlargement, above the anterior, and near to the occiput: at first the animal lost the use of its hind paws, then of its fore paws, and next of the trunk; but, in all these cases, all these parts, the hind and fore paws, as well as the trunk, preserve their collective movements, (*mouvemens d'ensemble.*)

"We ought to add, that these movements take place only in consequence of external irritations. What has disappeared is, first, the co-ordination (consentaneity) of the movements in leaping, flying, walking, standing, catching, &c. and, secondly, the volition of these movements.

"What remain are the contractions, and the connexion of these contractions in associated movements. The spinal marrow, then, properly ties the muscular contractions, in associations (*mouvemens d'ensemble*) as to volition and the co-ordination of these movements that resides elsewhere.

"The irritation of the spinal marrow constantly occasions violent convulsions: its destruction speedily brings on death; but this last effect depends on its action on the involuntary movements. Constantly, the abstraction of one of the tubercula quadrigemina causes the sight of the opposite eye to be lost. The irritation of a tuberculum determines contractions in the opposite iris; its complete removal abolishes the contractions completely. In the tubercula, therefore, the primary principle of the action of the iris and of the retina resides.

"In proportion as we cut off the cerebellum by successive layers, the animal loses gradually the faculty of flying or running: then that of walking; and, finally, that of standing upright.

"A single cerebral lobe being removed, the animal loses immediately the sight of the opposite eye; but the contractility of the iris of this eye continues, notwithstanding the animal experiences at first a weakness much more marked on the opposite side of the body. In other respects, it goes on as usual. The two lobes being removed, there is no longer any vestige of volition, or of memory, or of any perception: memory, volition, perception, reside then in the cerebral lobes."

13. ***Enlarged Heart.**** Pulsations communicated from the heart or large vessels are often very puzzling to the practitioner, and sometimes lead him to erroneous conclusions. Epigastric pulsation is very common in most cases of enlargement of the heart; but a pulsation in the region of the liver is rare, and can only take place from a malposition of the heart, as from an enlargement of the liver in a particular direction, complicated with hypertrophy of the heart. The following case recorded by Mr. Ward, apothecary to the Westminster Dispensary, illustrates these remarks.

A stout man, 33 years of age, had been for two years often affected with dyspnœa, cough, and pain in the chest. These subsided, but left a pain in the right hypochondrium, attended by a troublesome cough and unpleasant sensations in the chest. The breathing became very difficult, especially in the recumbent posture, the pulse being upwards of 100 and wiry. His countenance evinced great anxiety—the lower extremities became œdematous—the urine scanty—and there was a distinct pulsation not only at the scrobiculous cordis but at the right hypochondrium. He died, of course, and on examination the heart was found greatly enlarged, weighing 28 ounces. The lungs were healthy, but the right lobe of the liver "was nearly three times its usual magnitude." When the chest was opened, a large tumour was observed in the lower portion of the right side, "resembling a second heart covered with its pericardium." This on examination, proved to be the right lobe of the liver enormously enlarged, and pressing up the diaphragm, so as to come in contact with the heart—thus accounting for the pulsation in epigastric and in the right hypochondrium.

---

* Mr. Ward. Med. and Phys. Journ. No. 291.

XI.

1. *Practical Observations in Surgery.* By HENRY EARLE, F.R.S. Assistant Surgeon to St. Bartholomew's Hospital. Octavo, pp. 229, with plates. London, 1823.

2. *Observations on Fractures of the Neck of the Thigh-Bone, being an Appendix (the 2d.) to the Work on Dislocations and Fractures of the Joints.* By Sir ASTLEY COOPER, Bart. F.R.S. Surgeon to the King, &c. &c. Quarto, pp. 52, with plates. London, 1823.

EVERY man who comes before the public as an author, must expect criticism—nay detraction, if he excites attention at all—while he who stands forward as a commentator or critic on the works of others, plays a still more dangerous game; and is almost certain to repent of his enterprize if he permit any passion of the heart to interfere with the cool deductions of the head. This observation is the result of the general experience of mankind in all ages, and is not at all more applicable to the writings at the head of this article, than to the every day productions of the press. The authors, indeed, before us are conspicuous marks—one of them more especially—for the arrows of criticism—and the controversy between them, even were it on a much less important subject than the fracture of a bone, will be sure to furnish a prolific topic of conversation for the gossips of the profession. But this is not all. The controversies of eminent men, like the quarrels of kings, are not confined to the individuals immediately concerned. They become the centres of systems, around which other bodies, of various densities and magnitudes, revolve in formidable gyrations, or meet in hostile collisions. As far as the principal belligerents are concerned, it is impossible for any periodical writer to be neutral—because, the motto on both sides will doubtless be—"he who is not for me is against me." But there is a third party concerned—the public—the great body of the public, far removed from the personal influence of either of the other parties; and, to them, dispassionate reasoning and equitable statements are rather more agreeable than the most laboured or eloquent harangues. Whether, in the following exposition, we shall be able to divest ourselves entirely of prejudice or partiality, we really do not know, and, consequently, dare not affirm—but

this we aver, that we will give no opinion that is not the offspring of conviction in our own minds. We may err in judgment, but we will not intentionally lead astray.

Our readers are aware that, in the 3d volume of this series, pages 628—640, we gave a very ample analysis of Sir Astley Cooper's Observations on Fracture of the Cervix Femoris, and that we returned to the subject at page 225 of the present volume, with some additional facts and observations. Since that period, Mr. Henry Earle has published a volume, the principal object of which is to controvert some of Sir Astley's positions —and this publication naturally gave origin to the second Appendix now on the table before us, from the pen of Sir Astley Cooper. We may observe, in limine, that an alloy of *feeling*, we had almost said *passion*, pervades some portions of both these productions, but especially Mr. Earle's, which badly harmonizes with a scientific discussion. It is unquestionable too, that the unhappy example was set by the junior controversialist, as is evident to the most superficial observer. Indeed, Mr. Earle must have been conscious of this himself, when it was rather late; otherwise he would not have penned the following apology in the preface.

"On an attentive and *dispassionate* revise of the following work, since the sheets have been printed off, some expressions appear to have escaped me in the warmth and hurry of composition, which may possibly admit of a construction very different from my wishes or intentions. I am anxious, therefore, most distinctly to disclaim the slightest feelings of disrespect towards the author whose work I have reviewed; and should any passages appear to the reader as too strongly expressed, I must entreat his indulgence in referring them to the ardour of a person writing on a subject which has occupied much of his attention, who was anxious to establish opinions which he has long entertained, and to introduce a practice which he hopes will be found beneficial."—*Preface, p.* x.

In all scientific discussions *passion* invariably weakens the cause in which it is enlisted—but when it is betrayed in the commentaries of one individual on another in the same line of profession, it excites emotions in the bystander by no means favourable to the aggressor. But, notwithstanding this aggression on the part of Mr. Earle, from whom, as a young man, it comes with a very bad grace, we by no means excuse Sir Atley for not only retorting in kind, but with an occasional tone of severity quite foreign to the general tenor of his character, and totally unnecessary in a man of his rank and influence in the profession.

The extensive series of extracts given in our former analyses will save us much repetition here; and, therefore, we shall only dwell on those points which are of most practical importance, and on which the main questions of the controversy hinge—begging our readers to keep our former analyses before them, for reference, where the original work is not in their possession.

Mr. Earle, at page 2, of his work, has given a sketch of the anatomy of the thigh-bone in the adult, and there stated that the depression for the insertion of the ligamentum teres is in the centre of the head of the thigh-bone. Sir Astley questions the correctness of his anatomy, and asserts that, for the very best phisiological reasons, the depression is *not* in the centre of the head of the bone. Speaking of the round ligament, Mr. Earle says, page 7,—"This ligament is so disposed that the luxation of the femur on the obturator foramen is the only one which can happen without rupturing it." On this passage Sir Astley remarks—

"If it be meant that when the muscles and capsular ligament are removed, the head of the bone can be drawn over the edge of the acetabulum, towards the obturator foramen, every tyro in anatomy knows it; but if it be intended to state from this structure, that the dislocation in the obturator foramen, happens without rupture to this ligament, dissection proves that such opinion is erroneous."—*Appx.* 8.

At page 157 of Mr. Earle's work, we find the following passage:—

"If the capsular ligament was the principal support of the fractured portion, it is probable that retraction would be much more frequent, and to a greater extent, than it usually is; as, strictly speaking the capsular ligament could afford but little resistance, both on account of its looseness and want of strength. What ligamentous band Sir Astley alludes to, I am rather at a loss to understand. There are, indeed, some few fibres of aponeurosis, which extend over the surface of the ulna at the base of the coronoid process and olecranon, but I have not been able to detect any distinct ligament on dissecting the joint, nor do I find any such mentioned by Soemerring, or any other author." 158.

To this Sir Astley replies:—

"If the author will have the kindness to call upon me, I will show him as follows:—A band of ligamentous fibres crossing from the side of the coronoid process to the olecranon; and upon the radial side of the ulna, the upper portion of the coronary ligament of the radius passing from the side of the olecranon towards the neck of the radius. If the olecranon be broken off, and these ligamentous fibres be left

entire, the olecranon will remain still united to the ulna by means of these ligamentous productions, which I should not have noticed but for their influence on fractures of this bone." 9.

A plate is introduced by Sir Astley Cooper illustrative of this band of ligamentous fibres. From anatomy we now come to pathological surgery. Speaking of the causes of fracture of the cervix femoris, Mr. Earle observes :—

"The neck of the thigh-bone is so protected by the surrounding soft parts and the trochanter major, that it is completely defended from the immediate action of external violence; and, consequently, from any direct fracture. It follows that it must be broken by contre-coup, either by a fall on the trochanter, the feet, or knees. The former of these is by far the most frequent cause; although, on a superficial view, it may not appear the most probable Desault says, that, in his practice, twenty-four cases in thirty were produced in this way. The experience of Sabatier and Richerand proves the same fact."—*Earle, p.* 20.

But, *audi alteram partem.*

"These observations," says Sir Astley Cooper, "are quite contrary to my experience, for fractures of the neck of the thigh-bone within the capsule, have been often produced by violence which acted perpendicularly; or they have been occasioned by a sudden rotatory motion of the pelvis upon the thigh-bone; the violence produces its effect by acting with the advantage of a lever upon the neck of the bone, but in fractures external to the ligament, they are produced generally by severe blows from falls upon the trochanter itself; in the former case, the patients are often sensible of the injury before they fall, and fall in consequence of it, and therefore, the accident is commonly imputed to the fall; but in fractures external to the ligament, the blow forces the trochanter towards the neck of the bone, and the trochanter splits and receives the cervix into its cancelli.

"With respect to Desault, whose practice, for a short time, I had an opportunity of witnessing, and for whose character I have the highest respect, like some of our English surgeons, he confounded the three fractures of the upper part of the thigh-bone, under the general terms of "fracture of the neck of the thigh-bone."—*Appendix, p.* 10.

From attentive consideration we conceive, that the foregoing discrepancy of opinion is produced by Mr. Earle's applying the same causation to the fractures at different parts of the cervix, as described by himself in the 19th page. He acknowledges, at page 21, that "a large majority of the cases which he has witnessed, had been caused by falls on the pavement, &c."—and, occasionally, by falls when the person was carrying a heavy burthen. In these cases, and especially in people not

advanced in years, the fracture would usually be external to the ligament, as Sir Astley Cooper has properly observed. We now come to the subject of DIAGNOSIS.

"Where a person," says Mr. Earle, "previously in full possession of the locomotive powers of his limb, after the receipt of an injury, and particularly after a fall upon his trochanter, becomes suddenly deprived of that power; accompanied with a remarkable consciousness of incapacity in the injured member; and when, from the position and direction of the limb, it is obvious that there is no dislocation, a strong presumption must arise that a fracture has taken place. In such a case a surgeon is *fully warranted to act on such a suspicion*, and to treat the case as a fracture, without subjecting his patient to painful examinations, to gratify his own curiosity: the consequences of which, in addition to the pain inflicted, may be most injurious, and often render complicated; what, in the first instance, was simple.

"I cannot quit this subject without deprecating, in the strongest terms, the cruelty and impropriety of what is termed 'satisfying yourself that there is a fracture, and its precise situation.'" 23.

And at page 24—

"To return, then;—This symptom of a total and sudden privation of the power of motion, after a fall on the trochanter, should always be regarded as diagnostic of a fracture."—*Earle, p.* 24.

To the above passages we would urge objections of a prudential, chirurgical, and ethical nature. In the first place, we conceive that, even Mr. Earle himself will hardly deny that this sudden privation of locomotive power, after a fall upon the trochanter, may sometimes take place without either fracture or dislocation. And in what situation will that surgeon's character stand, who pronounces the serious verdict of "fracture of the neck of the thigh-bone" on a man who, in two or three days afterwards shall be walking about his business?—This is no imaginary case. We have repeatedly seen men fall from heights and upon hard bodies, and remain for many hours incapable of making any use of the limb, yet without there being any serious injury of the joint. It is true, we were not so very delicate as to take it for granted that there was a fracture of the neck of the femur, without examination. We were obliged to give a report of the nature of each case—and we first satisfied our "*curiosity*"—a laudable one, we hope—respecting the true state of affairs.—But again: we see in more than one place, in the above extract, that "*the cruelty and impropriety*" of examining a limb, so as to ascertain the existence or non-existence of fracture, is emphatically denounced. Now Mr. Earle either

means to impute this practice to Sir Astley Cooper, or he does not. If he does not, why bring it forward in a formal critique on Sir Astley's practice? But that Mr. Earle *did* mean the charge of "cruelty and impropriety" to directly apply to Sir Astley, is, to our apprehension, most evident, from the following passage in page 84.

"Now, if the generality of Sir Astley's patients, and particularly those in Guy's Hospital, have had all these indications of fracture demonstrated upon their persons, it is not difficult to understand the great degree of shortening of the limb, and destruction of the fibrous periosteum, which he has found in fractures within the capsule. I have already commented on the worse that inutility of such examinations in another part of this work, and only revert to the subject to explain one source of failure in Sir Astley's practice." 85.

Such a serious and sweeping charge against the practice of a surgeon, without any proof being adduced, is, in our minds, a breach of all medical ethics, and highly censurable in any member of a liberal profession. Of this charge of rupturing ligaments, &c. during an examination, we say Mr. Earle has adduced no proof. On the contrary, he has detailed cases, and quoted authorities, which very clearly prove, what, indeed, every anatomist well knows, that the living tissues, and especially the ligamentous structures, are not of such gossamer fabric as to be easily torn by even pretty rude examinations of the surgeon. At page 30, the case of Daniel Spilling is related, whose cervix femoris was fractured, and who was not only "examined with *great freedom, and for a considerable length of time,*" in various postures, but was subsequently directed to lie on his right side with the thigh bent on the pelvis—a "position that gave him great pain in the hip, and soon became intolerable." Our author also remarks, that very little attention was paid to the limb, (in Bartholomew's Hospital) and the man died of constitutional disease, on the 12th day after admission. Now here was a case, of course, to exemplify the rough examinations said to be used by Sir Astley Cooper. Yet, on examination after death—"the fractured surfaces accurately fitted to each other, and were retained in their proper relative situation by a portion of the reflected layer of the fibrous and synovial membranes, of about an inch in extent, which had fortunately *escaped being torn, notwithstanding all the examinations which were instituted after the accident, and the total neglect of any apparatus to restrain the motions of the limb.*" 32. "I have met, (says Mr. Earle) with

two other cases, in which considerable portions of these membranes remained undivided, notwithstanding the *great force* which was employed in ascertaining the nature of the accident." Our author quotes Delpech, who asserts, that the reflected synovial and fibrous expansion is rarely torn, at least to any considerable extent.—"Cette expansion est rarement rompne, du moins en grande partie." These cases and these quotations prove at least that, in those few fortunate instances where the reflected membrane is *not* torn by the accident which produced the fracture, it is not likely to be torn afterwards by the mere examination of the limb. Not that we attach any importance to the assertion of Delpech that the reflected capsule is rarely torn—because it is well known, that Desault and other French surgeons have generally confounded the three different kinds of fracture of the cervix and upper part of the thigh bone, denominating them all "fractures of the neck of the bone." We maintain, therefore, that it is contrary to the best principles of medical ethics to attribute the rupture of ligaments and membranes, and the non-union of bones to the improper manual examination of one of the ablest surgeons of the age we live in, merely because the general experience of the profession does not tally with a favourite proposal or doctrine of Mr. Earle. We certainly do not much wonder that this insinuation should have called forth some expressions of unusual warmth from Sir Astley Cooper at page 11 of the Appendix; though we are confident that he would have best consulted his own dignity, if he had merely quoted the passage, and appealed to his brethren as to its moral tendency—or if he had confined himself to the following sentence,

"With respect to my own cruelty or inhumanity, *particularly to the patients in Guy's Hospital*, God forbid that I should be the advocate of a cruel, coarse, or unnecessary examination, and no one has a right to accuse me of it; all I have recommended may and ought to be done with gentleness; ask my greatest enemy, and let his answer decide, whether the poor of London, and the patients in Guy's Hospital, are or are not anxious to place themselves under my care." 14.

We can aver that the distinguished surgeon in question is not less revered by his pupils than beloved by his patients in Guy's Hospital, if any credit can be placed in the physiognomies of both classes. But this by the way.

The next point of discussion is the retraction of the limb. Mr. Earle asserts that, in every instance he has examined, the

retraction did not exceed from half an inch to one inch, except where the neck was entirely absorbed.

"I have stated it," says Sir Astley Cooper, "to be from one to two inches shorter than the other limb; and, from having since seen a case in which it was more than two inches. I extended it to two inches and a half. But, instead of this statement being greater than it ought, I have now to add, that in Mr Langstaff's collection there is a preparation of the fractured neck of the thigh-bone within the capsule, taken from a man named Campbell, aged 82, in whom, Mr. Langstaff, assured me the shortening was four inches; and, to convince me of this, he sent for the shoe which the man had sworn after his accident, and which I measured: the heel of the shoe was two inches and a half in thickness, and he wore some pads in the shoe, which raised his heel one inch and a half higher to bring it even with the other leg; therefore if I were to alter the sentence, it would not be in the way our author wishes, but by making the utmost difference in length four inches. The usual state is, that the heel of the injured limb rests in the hollow between the malleolus internus and tendo achillis of the other leg. I know that there are examples in which the limb has been shortened only half an inch, but these are exceptions to a general rule, and they depend upon the mode in which the fracture has happened; for a fork is sometimes formed in the trochanter minor, which receives the neck of the bone, and prevents its farther descent." 16.

Sir Astley further observes that, in fracture of the neck of the thigh-bone *external to the capsule*—when the trochanter splits, and the neck of the thigh-bone is received into its cancelli, the degree of shortening of the limb is very slight, being generally from half to three quarters of an inch. The reason is obvious—for the head of the bone passes outwards more than it descends. Our author has lately inspected a case of this kind with Mr. Key. The moment he saw it he pronounced it to be a fracture external to the capsule, from the limb being so little shortened—not three quarters of an inch, and other circumstances. The neck of the bone was found forced into the cancelli of the trochanter major. The parts are preserved for inspection, and Mr. Key vouches for the degree of shortening *

Mr. Earle next adverts to the case in Mr. Langstaff's Museum, in which there are two fractures, one within, the other external to the capsule. The former is united (though slightly)

* As for the cloud of authorities from the other side of the Channel which have been cited by Mr. Earle, we confess that they appear to darken rather than illumine the subject—since as we before stated, (see Mr. Cross's sketches,) the French surgeons have made little or no distinction betwen fracture within and external to the capsule.

by ligament, the latter by bone. The following passage, from Sir Astley's appendix, will give the reader a sufficient idea of this part of the controversy.

"From reading my account of a preparation, contained in Mr. Langstaff's excellent Museum, of fracture of the neck of the thigh-bone within, and another external to the capsular ligament, it is said in the work before me, page 40 'I was led to make a very particular examination of this preparation, and the inferences which I draw from such examination are very different to those at which Sir Astley has arrived.'

"The only conclusion I drew was, that the one unites by bone, and the other by ligament.

"He says—'In the first place, I observed that the fractured surfaces within the articulation were very accurately opposed to each other, and, consequently, that very little shortening could have taken place.

"To this I answer, that not one word was said respecting their being opposed to each other or not, and therefore no conclusion was drawn by me about it; and as to ascertaining the shortening of a limb, preserved in a glass, and separated from the surrounding bones and muscles, no correct opinion could thus be formed upon the subject.

"'Secondly: (says Mr. E.) I perceive that very firm ligamento cartilaginous union had taken place.'

"I would ask, is this the *ossific union* for which the author contends? The truth is, that I have seen a number of cases of fracture of the thigh-bone within the capsule, but, as will be seen in the plate, never less union, even by ligament, than in this preparation. Mr Langstaff is a most liberal man, and will be happy to show the preparation to any person anxious to see it.

"'Thirdly:—It was evident, that a considerable portion of the 'reflected membrane was not torn through.'

"I have drawn no conclusion from the preparation in that respect; but I could wish Mr. Langstaff to be asked if any portion of the reflected membrane remains.

"'Fourthly:—It appeared very clear that the fracture within the 'articulation would prevent the motion of the pelvis from being communicated to the fracture external to the capsule.'

"I do not see this; the motion of the pelvis must be communicated to the insolated portion of bone through the medium of the capsule.

"Here then the conclusions are entirely the author's, and not mine; for I drew no other than that the internal fracture did not unite, and that the external united; and with respect to the accuracy of description, I wish the reader to consult the preparation, as well as plate 11, which is a faithful representation of it."* 20.

The period of life at which these fractures happen has been a prolific source of animadversion on the part of Mr. Earle—

* Mr. Earle has since acknowledged that he entirely mistook the preparation in Mr. Langstaff's museum, describing one preparation for another.

and that evidently from some obscurity in Sir Astley's statements, by which the cases he designed for exceptions have been misconstrued for the general rule. We therefore acquit Mr. Earle of any thing like intentional misrepresentation on this point—while the original rule laid down by Sir Astley stands, according to our minds, precisely where it did, and equally as strong as ever.

"I have now been," says Sir Astley, "thirty-nine years at St. Thomas's and Guy's Hospitals; and, for thirty years, have had more than my share, and much more than I merited, of the practice of London. We have eight hundred and fifty patients in our Hospitals; and I believe that, in the two hospitals, eight cases of fractures of the upper part of the thigh-bone occur in each year; but, in order to prevent my exceeding the average number, I will consider them only as five per annum; thirty-nine, multiplied by five, produce one hundred and ninety five; add to these one case only in each year, in my private practice of thirty years, they will collectively amount to two hundred and twenty-five cases; now, in that time, I have only known *two cases* of fracture of the neck of the thigh-bone within the capsular ligament *occur under fifty years of age*; one was in a patient aged thirty-eight, who had an aneurism of the iliac artery; and the other has been kindly shown to me by that excellent anatomist, Mr Herbert Mayo. Our author states that he has 'examined, post mortem, three fractures of 'the neck of the thigh-bone within the capsular ligament in young peo-'ple.' I shall request permission to examine these rare and curious cases, which our author has no doubt preserved." 21.

But having acquitted Mr. Earle of any intentional misconstruction of the three cases designed as exceptions by Sir Astley, we know not how to do the same respecting the passages marked in italics in the following extract:—

"And this is all the evidence (the three exceptions mistaken for general rules) adduced to prove that fractures external to the capsule occur in early life—that they are the result of great violence—*that they are not shortened*—and that *they are capable of ossific union.*" *Earle*, 50-1.

We shall give the answer to this passage in Sir Astley's own words.

"To the first, I have to state, that I have mentioned that fractures external to the ligament *occur under fifty years of age*; a great number of these cases which have fallen under my notice, have occurred under that period, and, therefore, a surgeon called to the bed-side of a patient who has an injury to the upper part of the thigh-bone, if he finds the age of the patient to be under fifty years, will, with a very rare exception, be correct in his judgment, if he concludes it to be

either a fracture just external to the ligament, or one through the trochanter major But I also mention that *both fractures occur in age*, and therefore no conclusion can be drawn between the two, in advanced age, but by the most careful examination. The three cases which I have given clearly show this. If I had said these fractures external to the capsule only occur under fifty years of age, our author would have had some foundation for his remarks.

"I have stated that fractures directly external to the capsule, arise from greater violence than fracture within the capsule; for my experience has taught me, that a very slight accident generally occasions the fracture within the capsule, and a violent blow, or fall, the other: the first is an accident upon which the fall often succeeds, the other is generally the consequence of that fall; many of those within the capsule which I have witnessed, were produced by the person's slipping from the curb-stone to the road-way,*—not that I mean to deny, that a fall will, and does occasionally, produce a fracture within the capsule, or that in a very old person, a fracture may occasionally happen in any part of a bone, from, comparatively, a slight cause to that which produces it in the young.

"It is also said, that 'I have observed they are *not* shortened;' whereas, I have expressly said, *The limb is shortened*,' but not to the same extent as in the internal fracture, for the difference in the length of the limbs rarely amounts to an inch; its extent depending upon the obliquity of the fracture, and upon the degree of laceration of the surrounding parts admitting of a greater or less retraction of the muscles.'

"It is farther said, 'That I give no other evidence of the fractures 'external to the capsule, and those through the trochanter, being 'capable of ossific union.' How could such a statement be made, when I have given three plates of the ossific union of the cervix external to the capsule, and one of the trochanter united (See the plates in the first and second edition of my work on Dislocations and Fractures.") 24.

Mr. Earle next enters into a critical examination of the reasons which Sir Astley Cooper has adduced against the probability of ossific union within the capsule. First, however, he places poor John Bell in a situation of ridicule, for having given contradictory evidence on this point. Now, as Mr. Bell's statements are confessedly contradictory, and consequently unavailable by either party, why does Mr. Earle "draw forth his failings from their dread abode," and cast a stigma on the memory of the illustrious dead—now no longer able to reply—apparently for no other purpose than the gratification of a censorious appetite? Surely this is bad taste. But to proceed.

Sir Astley had stated that if the broken extremities of a bone

---

* "Slipping from the curb-stone to the road-way produces a violence in a perpendicular direction; falling against the edge of the curb-stone produces often the fracture external to the capsule."

in any part of the body be kept much asunder, ossific union is prevented. While Mr. Earle admits the truth of this, as far as the neck of the femur is concerned, he doubts the correctness of the statement as a general position, refering to Mr. Dunn's case, commented on by us at page 633 of the 3d volume of this series. We have seen some preparations lately which appear to show that where a portion of one bone is cut away, say the tibia, the adjacent bone or fibula will sometimes throw out an osseous projection between the separated extremities of its neighbour, and thus produce a union, or continuation of bone. But this will not apply to the neck of the femur, which has no such friendly ally to lend it ossific assistance.

Sir Astley promises, in the 3d edition of his work on fractures, five different examples of non-union of bone, from separation. He is well aware, indeed, that two or three inches of the femur or os humeri may be removed, with ultimate union of bone—*if the broken ends are suffered to be drawn together by the action of the surrounding muscles.* In illustration of this, an interesting case is published by Sir Astley, as communicated by the present Mr. Benjamin Bell of Edinburgh, a short abstract of which we shall present to our readers.

A miner, 35 years of age, while exploding a rock, was struck by a fragment of stone which shattered the tibia and fibula of the left leg about four inches below the knee. Four large loose pieces of bone were extracted immediately after the accident. These portions, when united, formed about six inches of the entire cylinder of the tibia. The sides of the wound were drawn together and retained by sticking plaster, and the limb kept in a secure but easy position. The wound healed by the first intention, but a subsequent abscess formed, from which was discharged a portion of bone, thought to be a fragment of the fibula. When examined, thirteen months after the accident, the leg appeared to be about two inches shorter than the other. A large cicatrix occupied the fore and middle part of the shin—the patient could extend the leg and stamp on the floor with considerable force; "*but the leg was to a certain extent flexible, and could be slightly bent by the hands in four different directions.*" "It seemed to me, (says Mr. Bell) as if the space between the two ends of the fractured bones had been filled up with a sort of ligamento-cartilaginous matter, resembling that found in cases of fracture of the neck of the femur external to the ligament," &c.

In respect to Mr. Dunn's case, of which Sir Astley has re-

ceived a cast from Mr. D. himself, some experiments are to be detailed in the 3d edition, explanatory of that very curious phenomenon.

Sir Astley Cooper had stated that an increased quantity of synovial fluid is secreted in cases of fracture of the cervix, from the augmented determination of blood to the capsular ligament and synovial membrane—and that this superabundance of synovia distends the capsule, and thus prevents the contact of the bones, by pushing the upper part of the body of the thigh-bone from the acetabulum. Mr. Earle observes upon this that, as death rarely takes place soon after the accident, and as it is allowed by Sir Astley that the superabundant synovia is, after a time, absorbed, so "it is more than probable that this fact requires the confirmation of actual observation." Sir Astley has referred Mr. Earle to a very unexceptionable authority on this point—namely, to himself (Mr. E.)—who, as our readers may see, in p. 32 of Mr. E.'s book, punctured the capsular ligament on the 12th day, and let out "*an ounce of bloody synovia.*" It is true, the bones were *not* separated here, *because* a portion of the reflected membrane was left untorn. But the existence of the superabundant fluid being conceded, Mr. Earle's ingenuity makes its presence contribute to the approximation rather than separation of the bones, in the following manner.

"To illustrate this, and place it in the clearest point of view, *we will suppose* an oblong bag rather loosely applied over a cylindrical portion of wood, and firmly fastened at the distal ends of the same; *then* let the wood be divided transversely near its centre, and the loose state of the bag will in that case admit of a certain degree of separation between the two portions: but distend the bag with fluid, taking care to keep the divided ends of the wood in their proper relative situation, and it will be proved to demonstration that the two pieces of wood will be brought into contact with each other; and the greater the degree of distention, the closer will be the contact to which they will be brought; because the process of distention will have the effect of expanding the sides of the bag, which alone can yield to the pressure of the fluid and consequently of approximating its two ends; which being fastened to the distal ends of the two pieces of wood, must force their divided surfaces into closer contact." 75

We are rather at a loss to conceive how Mr. Earle divides the piece of wood *after* the ends of the bag are firmly fastened over it. The whole experiment, however, is acknowledged to be a *supposed* one—and from this supposition let him turn to the knee under an extension of its ligaments from an increased

secretion of synovia, when he will see its bones unequivocally separated.

Mr. Earle reverts again and again to the hypothesis, for, such we must regard it, that Sir Astley's examination of the limb tears the reflected membrane, and thus prevents the chance of bony union. We shall not again enter into controversy on this point, having proved by the very cases adduced by himself, that the roughest handling and entire neglect of treatment afterwards, did *not* lacerate the membrane, or separate the ends of the bones.

Mr. Earle next objects to the conclusions which Sir Astley Cooper came to, from his experiments on animals—and that upon three grounds—the opening of the capsular ligament rendering the fracture a compound instead of a simple one—the laceration of the reflected membrane—and the unrestrained motion of the limb afterwards. The following extract will convey Sir Astley's replies to these objections.

"The next observations relate to my experiments on animals, which prove that the head of the bone, even in healthy animals, will not unite with the cervex; and which are objected to upon the ground that they were compound fractures. Now these fractures were not compound in the true sense of the word, for they were united by adhesion and not by granulation; the wound which was made through the integuments was valvular, and healed immediately A compound fracture unites by granulations, and a simple fracture by adhesion; but here the external wound almost immediately adhered, and, consequently, it did not heal by granulation. They are also objected to on the ground of the ligament being cut through In one of these experiments the capsular ligament was opened: in the other it will be seen it was not; both were broken by a blunt instrument. The two preparations which I have preserved were the only examples in which the experiment was complete, as regards the transverse fracture; but I have two other interesting preparations derived from these experiments. I also made a great number of others, in which the fractures continued compound; and in each of these, the head of the bone either became absorbed, or was discharged by ulceration, and I never could succeed in uniting the head to the neck of the bone. I have since divided the neck of the thigh-bone in a dog, and the head of the bone was three-fourths absorbed. By way of contrast, I have since divided the bone externally to the capsule, in five instances, and have preserved the bones; the wound united by adhesion, and every bone has been healed by ossific union; the natural inference is, that fractures within the capsule do not unite by bone, but the fractures external to it readily do so. As to the bearing upon the limb, or its weight having any influence to prevent union in these animals, I have only to observe, that the muscles become contracted, the limb drawn up, and the animal cannot bear upon it for several weeks.

"My friend, Mr. Brodie, has furnished me with the following account of an experiment he made, and which fully confirms my observations.

"DEAR SIR,

"The circumstances of the experiment, which I mentioned, were briefly these:—The tibia of a guinea-pig was broken at the lower end. A month afterwards the animal was killed. On dissection I found a fracture extending across the tibia, transversely, and so close to the ankle-joint, and it was situated at that part of the bone which is covered by the reflected layer of the synovial membrane. The synovial membrane itself, and the ligaments of the joint, appeared to have been very little injured, and the broken surfaces had remained in good apposition; nevertheless, there was not the smallest union of them, either by bone or ligament, and there had been no formation of callus round the fracture. The bone in the neighbourhood of the fracture, had become compact and hard, in consequece of the ossification of the medullary membrane lining the cancelli.

"I am, Dear Sir,

"*Saville Row,* "Your's truly,

"*August* 16*th*, 1823. "B. C. BRODIE." 31.

Mr. Earle has given a short abstract of Mr. Colles' eleven cases of fracture of the cervix, and makes objections to most, if not all of them, as not bearing properly on the subject in litigation. One of the prominent objections rests on the circumstance of several of them being dissecting-room subjects where—"*as nothing is known of the treatment, no conclusion can be drawn from the case.*" Surely Mr. Earle will not object to the same rule being applied to himself—unless, as sometimes happens, he has one system of evidence for himself and another for his adversary.

By this time the reader will be ready to agree with Mr. Earle that "he has hitherto only adduced *arguments* in opposition to the reasons which have been assigned for the want of bony union, and that the *onus probandi* rests with him to show that bony union has taken place." It certainly does—and we now proceed to inquire how he has exonerated himself.

"That such an occurrence, without any lameness, or perceptible shortening of the limb, has happened several times in the course of my experience, I am perfectly satisfied of in my own mind; but as the individuals are either now living, or have died without affording me an opportunity of ascertaining the actual state of their limbs, I cannot reasonably expect to gain implicit credence to all the testimony which I might offer upon this subject." 95.

As this is a species of evidence which Mr. Earle would be the last person in the world to admit, we must beg leave to consider it "as dust in the balance," and to pass it over.

We now come to evidence from dissection. One of the nurses belonging to the hospital, aged 74, was knocked down in the street by a horse in the year 1808, by which accident she had the cervix femoris fractured. During the first three weeks little or no attention was paid to the patient. Mr. Earle then placed the limb in a proper situation (having even then distinctly felt a crepitus,) and put the patient into the double bed, in which she was kept seven weeks. She died at the end of thirteen weeks from the accident, and on dissection there was found a transverse fracture of the cervix, within the articulation, apparently united by bone. When boiled, however, "*the union became loosened.*" We shall allow Mr. Earle all the advantage which this case can afford his cause, without a single comment.

It is on the following case that Mr. Earle appears to rest the main body of his evidence.

"A very interesting case of bony union and osseous deposit within the articulation is recorded by Christopher Henry Erndleus.* The following is the description which he gives of the nature of the accident:—Cullum vel cervicem ossis femoris a violentiâ externâ frangi frequentius accidit, quam a plerisque creditur; ossea autem vel vitrea (uti à quibusdam appellatur) lamella in hâc parte tenuissima est, et quamvis communis sit opinio, ubi patientes de dolore et motu abolito in his partibus conqueruntur, *exarticulationem vel luxationem ossis ischii accidisse, falsa tamen, imo propter incredibilem ligamentorum ac tendinum circumjacentium crassitiem ac robur, impossibile exarticulationem tali modo luxari.* Talem fracturam his meis oculis vide et manibus palpavi in cadavere fœminæ nosocomei muliebris Amstelodamensis sociæ in quâ tractu temporis, fractura illa cervicis ossis femoris dextri per callum coaluerit iterum. *fœmina tamen exinde per omnem ætatem* ad mortem usque *clauda. Callus policis latitudine sub ipso capite magno ossis femoris extabat, nulla autem in ligamentis ac tendinibus musculorum læsio vel præter naturalis constitutio erat.*'" *Earle*, 98.

Mr. Earle observes that "*this case is the more valuable, as a simple narrative of the fact, without any controversial speculation on the possibility or not of union within the joint.*" 99. But we confess that the surgeon who seriously sets about proving that *dislocation of the head of the femur is a thing impossible*, would not be the umpire which we should choose in determining the nature of injuries of that part. Nor do we think the language of Mynheer Erndleus so unequivocal as Mr. Earle believes it. Does he mean to say that the callus stood out (exta-

* "Relatio Itineris Anglic. et Batav. p. 86."

bat) an inch from the surface of the cervix, and that without producing any lesion or displacement of the tendons or ligaments in its vicinity? The case appears to us to be a *disease* of the bone, such as may be seen in any anatomical collection, and consequently we consider Erndleus to be totally deceived. But if Mr. Earle still stands out for the testimony of this surgeon, we have no objection—for he proves a great deal too much for him who quotes him. He unequivocally proves that by this bony union of the cervix (if it was such) the woman was lamed for life—"*fœmina tamen exinde per omnem ætatem ad mortem usque clauda.*" We think this is about one of the most unfortunate cases which Mr. Earle could have quoted in the whole corpus historicum of surgery.

Mr. Earle has found in Mr. Heaviside's collection "a bone evidently bearing the marks of having been *obliquely fractured just at the insertion of the capsular ligament*, in which there is a large osseous deposit round the base of the head." The position of the fracture (if it was one, which we very much doubt) deprives it of any influential bearing on the question under discussion.

Mr. Earle "reserves to the last," the "highly interesting specimen in the possession of Mr. Abernethy, found by Mr. Stanley in the body of a subject in the dissecting-room." The subjects found in the dissecting-room by Mr. Colles in Dublin, are, of course, to be counted as nothing—their histories being unknown. But the case is quite altered on this side of the Channel, and on Mr. Earle's side of the question. In this last instance it must "be admitted by the most sceptical"—although —"nothing is known respecting the case."

"As it is Mr. Stanley's intention to publish a description of these bones, I will only so far anticipate that gentleman's account by stating that they were both found in the same subject; that the fracture on the right side was entirely within the articulation, and on the left side partially; that there was very little shortening of the limbs, arising only from the loss of obliquity in the neck; and, lastly, that the most perfect osseous union has taken place, which can be traced through the whole substance of the neck, in the different sections which Mr. Stanley has made." 100.

Having seen so many bones of old people where disease, and the efforts of Nature to repair the decay of our fabric, produce the similitudes of united fractures, although there never was a fracture, we beg leave to demur to the present proof, even at the risk of being denominated sceptical. Let us hear what Sir Astley Cooper has to say on this subject.

"The third proof of the union of the fracture of the neck of the thigh-bone is from the preparation of Mr. Stanley, upon the subject of which some observations are required. For Mr Stanley I have great respect; I know him to be well founded in anatomy, and excellently qualified to make a good surgeon.

"The description which our author has given of this case is defective in two very essential points. In the first place, he does not say that in one of them the appearance of fracture was external to the capsular ligament, and, therefore, not applicable to his object. Secondly, he does not mention any thing of disease which existed in other joints.

"I do not mean to deny the possibility of the necks of both thigh bones in this subject having been fractured, because that point can only be determined by the history of the accident, and by a very careful and accurate examination of several sections of the bones; but I can show that similar effects are produced by disease.

"The neck of the thigh-bone, in adult persons of middle age, has a close cancellated structure, with considerable thickness of the shell which covers it; but in old subjects, the cancellated structure of the shaft of the bone, which is formed of a coarse net work, loaded with adipose matter, is often extended into the neck of the bone, and the shell which covers it becomes so thin. that when a section is made through the middle of the head and cervix, it is found diaphanous; of this I have several specimens. As the shell becomes thin, ossific matter is deposited on the upper side of the cervix, opposite the edge of the acetabulum, and often a similar portion at its lower part, and thus the strength of the bone is in some degree preserved: this state may be frequently seen in very old persons. Mr. Steel. of Berkhampstead, one of the most intelligent surgeons, and most respectable men I know, gave me the thigh-bone of a person thus altered, whose age was ninety-three. When the absorption of the neck proceeds faster than the deposit on its surface, the bone breaks from the slightest causes, and this deposit wears so much the appearance of an united fracture, that it might easily be mistaken for it.

"Before the bone thus alters we sometimes meet with a remarkable buttress shooting up from the shaft of the bone into its head, giving it additional support to that which it receives from the deposit of bone upon its external surface.

"But another change is also produced from disease, of which the following is the history, and which directly applies to the subject before us:—

"Old bed-ridden and fat persons (generally females) are often brought into our dissecting room, with some of their bones broken (and more frequently the thigh-bone than any other) in being removed from the grave. If the cervix femoris of such persons be examined, it will be found that the head of the bone is sunken down upon its shaft, and that the neck of the thigh-bone is shortened, so that its

---

* "The author says 'that the fracture on the right side was entirely within the articulation, and on the left side partially.' My memory may deceive me, but if I rightly recollect, the appearance begins between the trochanter major and capsular ligament above; and it extends to the insertion of the capsular ligament below. If this were fracture, and not a change from disease, upon my own principles, union would be readily effected, beginning, as it would, externally to the capsule."

head is in contact with the shaft of the bone opposite to the trochanter minor; and at the part at which the ligament is inserted into the neck of the bone, the phosphate of lime is absorbed, and a ligamento cartilaginous substance occupies its place; either extending through the whole neck of the bone, or partially, so that one section exhibits signs of it, and in another it is wanting. The bone, in some cases, is so soft and fragile both in its trochanter and head, that it will scarcely bear the slightest handling: the motion of the thigh-bones in the acetabulum is almost entirely lost, so that the persons could have little use in the lower extremities.

"During the last winter we had two instances of this alteration in the neck of the bone, and it is an appearance I have several times seen.

"In examining the body of an old subject, very much loaded with fat, in the dissecting-room of St. Thomas's Hospital, I found that the gentleman who had dissected one limb had cut through the capsular ligament of the hip joint, and tried to remove the head of the thigh-bone from the acetabulum, but the neck of the bone broke under the employment of a very slight force; and, upon a farther trial to remove it, the bone crumbled under his fingers. As the other limb was not yet dissected, I requested Mr. South, one of our demonstrators, to remove with care, the upper part of the other thigh-bone; but although he used great caution in doing it, he could not remove the bone without fracturing the upper part of its shaft; but he succeeded in removing the upper part of the bone, so that it could be preserved; and of this bone I have given plates.

"We have here then a case in which the neck of the bone was absorbed so that the head was brought in contact with the trochanter, in which, most decidedly, there had not been a fracture, and in which the disease occurred in each hip-joint.

"Another case of the same kind was examined by Mr. South, during the last winter, which, so far as relates to the softened state of the upper part of the thigh-bone, was similar to the former; the head was spongy, the necks were shortened so that there was scarcely any remaining, the trochanter light in weight, spongy, and very large; and there was little if any motion in the hip-joint, and both limbs looked, at first sight, as if dislocated upon the pubes.

"But the best specimen of this state of the bone is the following, which I preserve with the most assiduous care, and value in the highest possible degree:—I have had for twenty years in the collection of St. Thomas's Hospital, the thigh-bone of an old person, in which the head of the bone had sunken towards its shaft. I have been in the habit of showing this bone twice a year as a specimen how bones sometimes becomes soft from age and disease, and from the absorption of their phosphate of lime; and I had frequently cut, with a penknife, both its head and its condyles to show this softened state On sawing through its cervix, the cartilage, deprived of its phosphate of lime, had dried away in several parts, and the appearance was such, that a person ignorant of the change would have declared it to be a fracture: only, that in some sections the cartilage had taken different directions, and in some the bone was not yet entirely absorbed. We have also in the Museum of St. Thomas's Hospital, a skeleton in which both the thigh-bones, and each os humeri, are, in a subject extremely altered by rickets, divided by similar portions of cartilage, in which no ossific matter exists.

"The plates which are appended will afford better ideas of these morbid changes than words can convey; and I hope Mr. Stanley will also give plates of his preparations; only *both* must be engraved, as without both the public cannot form a correct opinion." 42.

The last subject which is to be touched on is the treatment, and this need not occupy us long. We have not the smallest objection to Mr. Earle's bed, or to any apparatus which he may think conducive to the patient's ease, or the chance of bony union in the neck of the femur. But viewing as hopeless—and perhaps useless, or even injurious, the said bony union, we can only say, that were the accident to happen to ourselves, we certainly should not submit to one additional hour's confinement, with the view of attaining the object so much desired by Mr. Earle.

It has been remarked by one of our very respected cotemporaries, that Sir Astley Cooper has evaded the subject of treatment; but this is an oversight, as the following extract will amply prove.

"My belief is, that it is wisely ordained by nature, that this, and the other bones I have mentioned—the patella, olecranon, and extremities of the bones within the articulations, should not, as a general rule, unite by bone; for I find that if the neck of the thigh-bone be shortened, and falls towards the shaft of the bone, the person is unable to move his hip-joint, and becomes, what is vulgarly called, bed-ridden; the cause of this is easily explained: for when the cervix is shortened, the trochanter falls upon the acetabulum, and the play of the thigh-bones become destroyed. If an ossific union of the cervix femoris, if such should ever occur, as the neck of the thigh-bone is greatly shortened very soon after the accident, the same effect would be produced, and the play of the limb be destroyed; more especially when the callus, by which the union would be produced, must occupy a considerable part of the acetabulum, and the patient's state would probably be much worse than in that of ligamentous union.

"It has been said, that I have a strong prejudice upon the subject of union of the fractured neck of the thigh-bone, but this I cannot allow. When I began practice, I made use of all 'appliances and means to boot' to produce an ossific union, but finding I could not succeed in a single instance, and that my patients suffered not only in health, but from sloughing sores upon the back, which sometimes destroyed them, I gave up the attempt, and now aim only at tranquillizing the parts to prevent inflammation, and thus lessen the danger of the injury; and I endeavour, as soon as possible, to restore to the patient an useful limb by crutches,—by a high heeled shoe,—and by the aid of a stick,—until he can walk without one

"I have witnessed the practice of Mr. Cline, Mr. Chandler, and Mr. Birch; of Mr. Warner, Mr. Lucas, Senr. Mr. Forster, and Mr. Lucas, Junr. in our two hospitals of St. Thomas's and Guy's, and I have seen the practice of a great number of surgeons in London, yet I never saw one of these gentlemen succeed in uniting a fracture

of the cervix femoris within the capsule, although all variety of means were tried which their minds could suggest. Were these surgeons all perjudiced?

"The treatment which ought to be pursued in fractures of the upper part of the thigh-bone is as follows:—

"In fractures within the capsule, the limb is to be placed over a pillow, bent under the knee, from a fortnight to three weeks, until the inflammation in the joint, and the irritative fever have subsided; and when the patients are able to rise, the sooner they use crutches the better, because the more quickly do they recover. They are to bear gently on the foot at first, and gradually more and more, until the ligament becomes thickened and the muscles increased in their powers, so as to enable them to walk with a stick: a high heeled shoe is next advised them, by which the halt is much dimininished: and then, if the person be not of great weight, the stick may be discontinued.

"In fractures of the neck of the bone external to the ligament, when the cervix is thrust into the trochanter, the mode of treatment consists in placing the patient over the double inclined plane* and a band or girt is to be buckled around the pelvis, over the trochanter, to keep it pressed towards the neck of the bone; and thus they are held together until union is effected. I have, however, seen these fractures, when the girt is applied, do equally well in the extended position of the limb, as when placed over the double inclined plane, and in this respect I generally consult the patient's feelings.

"In fractures of the trochanter major a different plan must be pursued:—in this case, when the person is recumbent, the broken trochanter of the shaft will be found to have separated from the trochanter of the neck of the bone, and it is necessary to place a thick leather pad under the trochanter, to keep it elevated, so as to approximate the broken portions, or the bone will not unite. In Mr. Harris's relation of Mr. B——'s case, near Reading, not the least union was produced until this mode of treatment was adopted, although he had been kept in bed from July the 20th, to September the 11th.† I agree with our author that the fæces should be easily removed, and a portion of the mattress should draw out for that purpose; and this is readily done in any common bed." ‡ 34.

---

*"This can be easily made, with two pieces of board, thus, by any carpenter."

†"See case, page 159 of the Second Edition of my Work, and plate 30, for the bandages used."

‡In another place Sir Astley makes the following observation:—

"When *forty-five* cases of united fracture of the neck of the os femoris are shown against my *forty-four* of non-union, I will give up my general principle of non-union: and when five cases of fractures decidedly into the capsule are produced, of union by bone of this fracture (by surgical treatment,) without lameness or shortening of the limb, and the person walks better than he now does by the ligamentous union, I shall say that he who effected it deserves well of his country: but until that period arrives I shall continue of my present opinion.

"It is a reproch to some few of our English surgeons that the French, who formerly thought these cases admitted of ossific union, are now advertising a large reward for the best account of the cause that they do not unite by bone." &c.

It is surely unreasonable to charge Sir Astley Cooper with prejudice, because he will not, contrary to his experience and conviction, begin again attempts at bony union, which had repeatedly failed, and thus relinquish a mode of treatment which he found more beneficial than any other. But Sir Astley is unfairly accused of allowing no exceptions to his *general principle* of non-union by bone in the case in question. Whereas at page 142 of his treatise, he observes,

"'I am never so wedded to any opinion as to be prevented from trying, or wishing others to employ means which appear plausible or ingenious; and, therefore, this instrument ought to have a fair trial given it."* 5.

Again at page 44, in order to enjoin caution, he has said—

"'In every case, however, in which there is the smallest doubt whether it is a fracture within, or one external to the ligament, it would be proper to treat the case as if it were the fracture I shall hereafter describe, and which admits of ossific union.'" 5.

At page 43, we have the following remark.

"'The cases in which *union might be produced are two*:—one in which the periosteum covering the neck of the thigh bone is not torn through, which now and then happens; the other is when the head of the bone is broken, so that the cervix still remains in the acetabulum;† but in neither of these cases, will the limb exhibit the shortened state which the fracture of the neck of the bone usually produces.'" 5.

Sir Astley Cooper has charged Mr. Earle with *censuring the practice of Guy's Hospital*, and thus making an indirect attack on the surgical school there. Mr. Earle denies the charge of "an attack on the *honour and credit* of Guy's Hospital"—a charge which we can see no where in Sir Astley's Appendix. This being a purely ethical question, however, we do not deem it necessary to go into it;—with *intentions* we have nothing to do. We only judge of actions, facts, and effects. But we do think that out of the present controversy one good may arise—a lesson to those who hope to fill conspicuous stations in medical society, not to begin by questioning the well-earned repu-

* Mr. Hagerdorn's instrument for extending the thigh to produce bony union.

† "Mr. Brodie informed me of a case of that kind."

tation of others, but by zealous and persevering endeavours to advance the science, and secure a lasting name for themselves.

We entered on the foregoing article with great reluctance, because nothing is so disagreeable to us as medical controversies. We have suffered ourselves to give no opinion unaccompanied by the facts or arguments on which it was founded, and to these last entirely we solicit the attention of our readers. A patient consideration of both sides of the question has led us to conclude that Mr. Earle has failed in every point of his criticism—and that all he has said on the possibility, probability, and propriety of bony union of the cervix femoris within the capsule, will not alter the general sentiments entertained on these points by surgeons before the appearance of "Practical Observations on Fractures."

XII.

BIBLIOGRAPHICAL RECORD;

OR,

Books received for Review since last Quarter.

1. Transactions of the Associated Apothecaries and Surgeon-Apothecaries of England and Wales. Volume I, pp. 170 Preface, and 424 Text. Burgess and Hill, October, 1823.

---

2. Medico-Chirurgical Transactions. Vol. 12, Part. II. pp. 300, with plates.

---

3. First Steps to Botany, intended as Popular Illustrations of the Science, leading to its Study, as a Branch of General Education. By JAMES L. DRUMMOND, M. D. Professor of Anatomy and Phisiology in the Belfast Academical Institution. pp. 389, with numerous wood-cuts.

☞ *This little work is written in a very attractive style, and is well calculated to answer the object which the ingenious and classical author had in view.*

---

3. A Treatise on Midwifery; developing new Principles, which tend materially to lessen the Sufferings of the Patient, and shorten the Duration of the Labour. SECOND EDITION, considerably improved, and illustrated with numerous Cases and additional Observations, &c. By JOHN POWER, M. D. Physician Accoucheur to the New Westminster Lying-in-Charity, &c. 8vo. pp. 234, London, October, 1823.

---

4. The American Medical Recorder, of Original Papers and Intelligence in Medicine and Surgery, No. 23, for July, 1823. (In Exchange.)

☞ *In this Number, the Publisher has liberally offered a premium of 100 dollars for the best Essay on the prevailing Epidemic Fevers of the United States.*

---

5. Revue Medicale, for June and July, 1823.

---

6. Postcript to Mr. Moir's Notes on Dr. Macintosh's Treatise on Puerperal Fever, pp. 22.

☞ *Sincerely do we hope that this may conclude the war of words going forward among our northern brethren. No party can win, and all may lose at this unprofitable game.*

7. Dissertatio Medica Inauguralis de Synocho. AUCTORE JACOBO WRIGHT, M. D.

☞ *Contains many judicious remarks and ingenious observations.*

---

8. Archiv fur Medizininsche Erfahrung, &c. for January and February, March and April, 1823.

☞ *We return Dr. Wagner many thanks for the above numbers.*

---

9. Recherches sur le Ramollissement du Cerveau; Ouvrage dans le quel on s'efforce de distinguer les Diverses Affections de ce Viscère par des Signes Characteristiques. Par LEON ROSTAN, Medecin de l'Hospice de la Veillesse-femmes, Professeur de Medecine Clinique. *Seconde Edition*, pp. 503. Paris, 1823.

---

10. De la Medecine Operatoire, par R. B. SABATIER. Nouvelle Edition faite sous les Yeux de M. LE BARON DUPUYTREN, par L. S. SANSON, M. D. et L. J. BEGIN, Chirurgen, &c. In two volumes, 8vo. Paris, 1822.

---

11. Clinique Medicale, ou Choix d'Observations recueillies la Clinique de M. LERMINIER, par G. ANDRAL, FILS, M. D. Premier Partie Fievres.

---

12. A popular Treatise on Accidents, &c. for the Use of Persons residing at a distance from Medical Assistance. 8vo. pp. 107. Glasgow, 1823.

---

13. **Observations and Commentaries on Medicine, &c. &c. &c. By ADAM DODS, M. D. &c. &c. 8vo. pp. 82. Worcester, 1823.**

---

15. **Tralvels in Ireland, in the Year 1822, exhibiting brief Sketches of the Moral, Physical, and Political State of the Country: with Reflections on the best Means of Improving its Condition. By THOMAS REID, Member of the Royal College of Surgeons in London, and Surgeon in the Royal Navy. 8vo. 1823.**

---

16. **Two Voyages to New South Wales and Van Dieman's Land, with a Description of the Present Condition of that Interesting Colony; including Facts and Observations relative to the State and Management of Convicts of both Sexes; and also Reflections on Seduction and its General Consequences. By THOMAS REID, Member of the Royal College of Surgeons, &c. 8vo. 1822.**

---

17. **Formulary for the Preparation and Mode of Employing Several of the New Remedies, namely, Nux Vomica, Morphine, Cinchonine, &c. with an Introduction and copious Notes. By CHARLES THOMAS HADEN, Surgeon to the Chelsea and Brompton Dispensary, &c. Translated from the French of F. MAGENDIE, 3d Edition, 8vo. pp. 112. Underwoods, October, 1823.**

☞ *This interesting little work in our next.*

18. A Practical Treatise on Tropical Dysentery, more especially as it occurs in the East Indies; illustrated by Cases and Appearances on Dissection. To which are added Practical Treatises on Scorbutic Dysentery, on the Morbus Chylopoieticus and Gastrodynia a Fame; with some Facts and Observations relative to Scurvy in General, and a short Account of the Scorbutic Disease that appeared at the Penitentiary, Milbank. By R. W. BAMPFIELD, Esq. Surgeon. Author of an Essay on Hemeralopia, &c. formerly Surgeon to the Billiqueux and Warrior; and now one of the Surgeons to the Royal Metropolitan Infirmary for Diseases of Children, 8vo. Second Edition, pp. 344. London, 1823.

☞ *This highly valuable work, a review of which we gave in one of our early numbers, is now republished with many additions and improvements. It forms an indispensable portion of the medical library af every practitioner proceeding to the East or West Indies.*

---

19. A System of Anatomical Plates; accompanied with Descriptions, and Physiological and Pathological Observations. By JOHN LIZARS, F. R. S. &c. Part II. and III. Blood-vessels and Nerves. Edinburgh and London, 1823.

☞ *We are happy to see that the patronage of the public, on both sides of the Tweed, is liberally extended to this very deserving work. The plates increase in beauty and fidelity, while the letter press is a model of precision and perspicuity.*

---

20. Recherches Experimentales sur les Fonctions du Système Nerveux. Iier. Memoire de l'Influence du Système Nerveux sur la Digestion. Par M. M. BRESCHET, EDWARDS, et VAVASSEUR. Paris, 1823.

---

21. Observations on Fractures of the Neck of the Thigh-bone, being an Appendix (the 2d) to the Work on Dislocations and Fractures of the Joints. By SIR ASTLEY COOPER, Bart. Surgeon to the King, &c. Quarto, pp. 44, and three plates, 1823.

---

22. De Sede et Causis Vesaniæ. AUCTOR FRANCISCUS FRANCKE, M.D. Lipsiæ, 1823.

☞ *We return Dr. Francke many thanks for this ingenious thesis and the polite letter accompanying it. We will attend to the recommendation he has given of his friend.*

---

23. Remarks on an Institution for the Preparation and Use of Artificial Mineral Waters in Great Britain. By DR. STRUVE of Dresden. To which are added, Testimonials, by DR. KREYSIG of Dresden, and DR. CLARUS of Leipzig. 8vo. sewed, pp. 16. London, 1823.

☞ *For some years past, Dr. Struve, of Dresden, has excited much attention by his successful imitation of some of the most celebrated mineral waters on the continent, especially those of Pyrmont, Selters, Spa, Carlsbad, Marienbad, &c. The Testimonies of Drs. Kreysig and Clarus, as to the perfect similarity of these Artificial with the Native Waters, and the identity of their Physical effects, are very satisfactory. An apparatus and manufactory of these are now about to be erected in this country, probably at Brighton, by two gentlemen from Dresden, and they will therefore be put to the test of experience. We shall give further intelligence as it may reach us.*

24. Suggestions on the Use of Mercurial Friction on and under the Right Breast, to palliate the Evils of the Fever of Hot Countries. By WILLIAM FORBES, A.M. Surgeon. Manchester, Jamaica.—8vo. sewed.

☞ *This is a poor production.*

---

25. The Lancet, No. 6, for Sunday, November 9, 1823. pp. 36, price 6d.

☞ *We hold it to be a breach of etiquette for one periodical publication to animadvert on the conduct of another, unless attacked or interfered with itself. We mean, of course,* medical *journals; for political publications use no ceremony with each other. In offering a word or two of advice to our young friend the* LANCET, *and through him to* [illegible]*ral other of our juvenile cotemporaries, we trust they will not impute to us any unworthy motives, and that, on mature reflection, they will acknowledge the propriety of the advice we give.*

We are convinced then, that no medical periodical publication can succeed, unless conducted on unexceptionable *principles—we mean, such principles as cannot* reasonably *be objected to by the members of the profession. We think that the unauthorized publication of a man's lectures, as they are delivered from day to day, cannot be defended on principles of morality, equity, or medical ethics; and therefore we advise our junior cotemporaries not to take advantages of, or rely upon, a practice which can, at best, but afford a temporary interest. Secondly, we would dissuade them, if in our power, from mixing up politics, theatrical criticisms, and other heterogeneous matters, with medical science or literature. It is an unnatural union which cannot long hold together, and has invariably failed hitherto in every instance where it was attempted.*

The above exceptions made, we wish every success to the Lancet, and all other candidates for public favour—nor will we ever refuse to give whatever publicity they require through the medium of this Journal.

---

26. A Statement of the Early Symptoms which lead to the Disease termed Water in the brain; with Observations on the Necessity of a Watchful Attention to them, and on the fatal consequence of their Neglect. By G. D. YEATS, M.D. F.R.S. Fellow of the Royal College of Physicians of London, &c. &c. SECOND EDITION, considerably enlarged, 8vo. pp. 164. London, 1823.

---

27. Observations illustrative of the History and Treatment of Chronic Debility, the Prolific Source of Indigestion, Spasmodic Diseases, and various Nervous Affections. By WILLIAM SHEARMAN, M.D. Member of the Royal College of Physicians, President of the Medical Society of London, Senior Physician to the Royal West London Infirmary, and Physician to the London Dispensary. 8vo. pp. 225. London, 1823.

The communications received from Mr. Shipman, Mr. Ridge, Mr. Harvey, &c. have been transmitted to our respected cotemporaries, the Medical and Physical Journal, and the Medical Repository, after publication, in which they will be duly noticed in our Periscope department.

XIII.

BIOGRAPHY.—(Dr. BAILLIE.)

"——————— tua splendita facta
" Nulla unqam ex animis tollent oblivia nostris."

It is with sincere sorrow we have to record the death of one of our ablest physicians and best men! In Dr. Baillie, the profession has lost a father and a friend! When the mind of the medical practitioner was harassed with doubt, and that of the patient with despondency, the advice of the amiable and experienced physician was eagerly sought by both parties. To Dr. Baillie's honour, the practitioner might safely confide his reputation—to his judgment, the patient might implicitly confide his life. There is one great and fundamental principle in medical ethics from which Dr. Baillie never deviated—that of doing as much good as possible to the patient, with as little injury as possible to those previously in attendance. Although we firmly believe that there is, at this moment, more honourable feeling in operation among the different orders and individuals of the faculty that any former period, notwithstanding the clashings of interest, and the generally overstocked state of the profession, yet it is not to be disguised that there are too many who are ready to embrace every opportunity of enhancing their own influence or popularity, at the expense of those who go before or co-operate with them. This is a great breach of good faith—and is often most injurious in effect, when least tangible in form. Dr. Baillie was not the man, who by word, look, or action, would cast the slightest shadow of reflection on the conduct or opinion of the general practitioner or the ordinary physician in attendance. If he differed in opinion, or disapproved of the measures of others, that difference or disapprobation never appeared beyond the precincts of the consultation room. He knew too well the uncertainty of medical evidence, and the proneness of the human mind to error, not to view with tenderness the failings or even the indiscretions of others. In aiding the former or reproving the latter, he alarmed not the patient, and offended not the practitioner.* That such conduct was founded on the wisest worldly policy in the end, as well as on the noblest moral principle at the beginning, will be acknowledged by most

* That this delicacy or lenity might, in some instances, have the effect of screening delinquency, palliating error, or veiling ignorance, we are not prepared to deny. Indeed we have heard it asserted that such was actually the case, and that Dr. Baillie leaned sometimes so far on the side of mercy as to infringe on the sacred pale of justice. If this were the fact, of which, by the bye, we never heard an authenticated instance, how much more amiable is the failing than the opposite extreme, where stern justice is never tempered with heaven-born mercy!

men who have narrowly watched the career of physicians. That reputation *alone* can be solid or lasting which is based on the adjudication of the only legitimate tribunal—the voice of the profession; and he who hopes to raise it on any other foundation, or imitates the example of those who use unworthy means to attain popular fame or worldly pelf, will find himself wofully deceived in the end. The instances to the contrary are but exceptions to general rules, and ought, in fact, to stand as land-marks against hidden dangers. We hold it, therefore, as certain that, while Dr. Baillie's death must prove a public loss, the example of his professional life will long operate with beneficial influence on those members of the profession who remain behind.

"Hoc vigeant mandata, nec ulla obliteret ætas."

Dr. Baillie's character as a physician, is too well known to need much comment here. He has been considered by many as timid in practice, undecided in prognosis, and sceptical in the powers of medicine. But the mind as well as the body of man is moulded by the circumstances in which he is placed; and he who reflects on the station which the deceased has long held in medical society cannot wonder that the above mentioned traits of professional character should become somewhat conspicuous without any implication of the talents or judgment of the individual. Every one is aware that for many years past, Dr. Baillie was rarely called in, except in chronic, or the advanced stages of acute diseases. Is it not evident that, under such circumstances, he had far more frequently to deal with intractable and fatal cases, than with those of an opposite description. Hence arose an habitual caution, both in treatment and prognosis, which might readily be mistaken by the casual observer for timidity or indecision.

Dr. Baillie's early and intimate knowledge of anatomy, his careful observation of phenomena, and his long and ample experience, joined perhaps to a natural tact, enabled him to acquire a very considerable facility in forming a just estimate of the nature, seat, and extent of a disease—and it was in this facility or sound judgment, in our humble opinion, that Dr. Baillie's principal forte lay. Knowledge is power—and this power was, of all others, the most serviceable to Dr. Baillie, as it is indeed to every consulting physician, who can have little control over the daily management of diseases, but who may be of infinite service both to patient and ordinary practitioner, by aiding in the institution of correct views, and sound general principles.

As far then as chronic diseases were concerned, we conceive that the charge of timidity against Dr. Baillie was unfounded, and in some instances of violent and acute diseases, where we acted in conjunction with this lamented physician, we saw no want of decision, but a ready co-operation or acquiescence in the most vigorous measures.

In consultation with his brethren, Dr. Baillie was affable, candid, and free from the slightest tendency to overbearing, even with the humblest members of the profession—a trait of character which it would be well for some of the higher orders to imitate. Nothing, in fact, can be more indicative of a weak mind and defect of real knowledge than a dogmatical and domineering conduct in consultation. From the situation which Dr. Baillie so long held, as a kind of oracle in medicine, it was necessary for him to be extremely guarded in his diagnostic or prognostic conversations with the patient or friends, since every word he said was sure to be well remembered afterwards. On this account he was forced to give Delphic responses, in general, which might admit of different interpretations according as the event turned out. Nor was he to be blamed for this:—he well knew that no physician, had he even a thousand years' experience, can give positive predictions in medicine, unless he runs the risk of being more frequently wrong than right—yet predictions are always unreasonably expected by patients or friends, and they must be met by mystery oftener than by candour. Where there was no doubt, however, in his own mind, respecting the event whether favourable or fatal, Dr. Baillie very properly gave candid and honest opinions either to the patient or friends.

Dr. Baillie, as might be expected, used very simple prescriptions, and seldom ventured on new and hazardous remedies until they were long employed by others, well knowing that not one in twenty of them would stand the test of experience, and his patients were not of that class on which experiments could be safely tried. He was well aware also that the great object is to ascertain the seat and nature of the disease, and the proper indication to pursue— the *means* are generally found among our most common and safe remedies.

We have no reason to believe that Dr. Baillie was an avaricious physician; but his patients, for very many years before his death, were in that rank of life that rendered generosity unnecessary—perhaps injurious. We have, no doubt that, where this amiable physician saw reason for thinking the fee could ill be spared, he invariably declined it. One thing is certain, that his visits and advice were always at the service of his professional brethren in the hour of illness—even when the act of kindness interfered with his regular professional pursuits. In this, it is true, he was not singular; for to the credit of the profession be it recorded, that nine in ten of its members go more willingly to assist each other in sickness than to those patients who are to pay for their professional attendance.

Considering that Dr. Baillie dedicated a good many of his early years to pathological researches, and was the author of an esteemed work on Morbid Anatomy, it is somewhat remarkable that he did not evince so much regard to that minute pathology which, for

many years past, has been so successfully cultivated, as was to be wished or expected. We know indeed that our ardour in most pursuits (excepting perhaps that of wealth) abates as we decline in the vale of years; but Dr. Baillie had not arrived at such an advanced age as to account for this lukewarmness, on the above principle. He probably thought that minute pathology was much less important than careful observation of symptoms—but assuredly it is only by a combination of the two, that medical science can ever be materially advanced. We conceive that a knowledge of minute structure, both sound and morbid, is just as necessary to the physician as to the surgeon—for without this knowledge, he cannot trace the effects of diseases, nor connect these effects with their correspondent symptoms.

Whether Dr. Baillie was deeply versed in medical literature, ancient and modern, it is difficult to say, as he very rarely alluded to one or the other in his conversation or writings. The probability is that he did not attach much importance to ancient records, and that he preferred the book of nature before him, rather than the imperfect, confused, and too often false speculations of his predecessors. In this respect he had the example of his illustrious relative, John Hunter, before his eyes. After all, what is it that we prize in the writings of the ancients?—only those passages which our own experience approves.

The writings of Dr. Baillie are characterized rather by careful observation than expanded views. His great work on morbid anatomy, though it exhibits accurate representations and concise descriptions of the more common diseased structures, is, at the same time, highly defective in the histories and symptoms connected with them. It is indeed more than probable that most of the drawings and descriptions were taken from morbid appearances presented in the dissecting room, or in a pubic hospital, where of course the living phenomena, or, at least, the early history, could not be well ascertained. The work itself was published before he got into the great stream of private practice, where opportunities of connecting symptoms with changes of structure were every where at hand.

In private life we have reason to believe that Dr. Baillie was as amiable as in his public capacity. It is well known that his purse was the first open for all charitable institutions, and for many years before his death he drew, at stated periods, round his hospitable table, a succession of all the more distinguished of his brethren, (without regard to rank,) for the promotion of friendly intercourse and professional conversation. At these assemblages of talent and information Dr. Baillie always enjoyed the "feast of reason and the flow of soul," as much as the youngest of the company—inspiring them with that beneficence of character and conduct for which he was himself so distinguished. Long may the example of this great and good man continue to operate on the upper as well as the lower classes of medical society!

Since writing the above, (which was sketched while wandering on the banks of the Rhine,) we have seen Mr. Bell's biographical notice of Dr. Baillie, as delivered to his pupils in an introductory lecture in the school originally adorned by the deceased.

Dr. Baillie was the son of the Rev. James Baillie, Professor of Divinity in the University of Glasgow. His mother was the sister of Dr. William and Mr. John Hunter. He took his degree in Baliol College, Oxford, and finally came under the superintendence of his uncle, Dr. William Hunter, who brought him forward in life, and got him appointed physician to St. George's Hospital. Dr. Hunter wished Dr. Baillie to succeed him; and for that purpose associated with him his assistant, Mr. Cruickshanks. At his death he also bequeathed to Dr. Baillie the use of his anatomical preparations for 30 years. His prelections were remarkable for that lucidus ordo and clearness of expression resulting from a perfect conception of the subject. They were conveyed to his pupils in the simplest and most intelligible way. It appears from Mr. Bell that "his association in the lectureship made his duties (in Windmill Street) very unpleasant to him," otherwise he would have continued much longer his course of instruction to professional youths.

This amiable physician has presented his books, plates, and specimens of morbid anatomy to the College of Physicians, together with a sum of money to be expended in keeping them in order. A handsome tribute to the memory of Dr. Baillie was inserted in the College annals, on the 30th September, from which we shall extract a single sentence. "To the rising generation of physicians it may be useful to hold up, for an example, his remarkable simplicity of heart, his strict and clear integrity, his generosity, and that religious principle by which his conduct seemed always to be governed, as well calculated to secure to them the respect and good will of their colleagues and the profession at large, and the high estimation and confidence of the public."

Mr. Bell well observes that "we cannot estimate too highly the influence of Dr. Baillie's character on the profession to which he belonged. All wished to imitate his life—none to detract from his fame. Every young physician who hoped for success, sought his counsel:—and I have heard him forcibly represent the necessity of a blameless life, and that, unless medical reputation be joined with purity of private character, it neither could be great nor lasting."

Dr. Baillie was only 63 years of age, though he appeared to be more than that in constitution. Early in the spring of this year he became affected with the influenza then prevailing, and he did not suffer himself to remain quiet at home, but continued to visit many patients who were not so ill as himself. We were present at the last medical dinner which he gave, in the beginning of the present summer. We all remarked the formidable change

in his appearance. He was constantly coughing and expectorating; but seemed to think there was nothing more than a trifling affection of the mucous membrane of the lungs. The complaint, however, was producing rapid emaciation, and ultimately carried him off.

Dr. Baillie has left a wife, a son, a daughter, and two sisters, to deplore his loss. He must have realized, after all expenses, a sum of more than one hundred thousand pounds.

And now that the last debt of Nature has been paid by Dr. Baillie, it will be silently asked by many a mind— "who is to take his place?" We think we may safely affirm, without wounding the self-love or the vanity of any man, that no individual will ever again hold that place in the public and the professional estimation which was so long occupied by the deceased. Not that there is any lack of talent to supply the vacancy, but because there is now too much information expanded among a great number ever to permit any individual to become that kind of monarch in medicine which Dr. Baillie was. The last 25 or 30 years have effected a great revolution in this respect The unexampled activity of the human intellect—the rapid and wide diffusion of knowledge—the boundless zeal in exploring the laws of the animal economy, in health and in disease—and the improvement in the education of the general practitioner, are rapidly bringing every man to his proper level, and almost threaten to bring all men to the same level! There never can again be seen a monarchy, nor even an aristocracy in medicine. A fungous and temporary reputation among nurses, old women, hypochondriacs, and fashionables, will indeed every year spring up and decay; but any thing like a great ascendency in professional estimation can only result from the birth of some genius like that of a Hunter, which is not to be expected above once in a century. Inequalities of talent or capacity will ever indeed be found among men; and allowing knowledge to be equal, some men will always be able to apply it with more advantage and effect than others; but beyond this, there will soon be little else than a general democracy in medical science—at least among the more zealous and distinguished members of the profession.

OBITUARY.

Lately died at Horncastle, in Lincolnshire, Dr. Rich. Fawssett, very much regretted by an extensive circle of friends and patients.

Lately deceased at his house in the Albany, Dr. J. N. Johnson, Fellow of the Royal College of Physicians.

XIV.

MISCELLANEOUS INTELLIGENCE.

DR. MERRIMAN TO DR. JOHNSON.

DEAR SIR,

I observe in the last number of the Medico-Chirurgical Review, a opinion respecting the vitality of infants, born at seven and eight months o utero-gestation, the accuracy of which appears very doubtful. The opinion is thus expressed in the review of Paris and Fonblanque on "Medical Jurisprudence," page 140:—"Our authors ridicule as a conceit the idea entertained by Hippocrates, and even by many modern writers, that an infant could live at seven months, but rarely or never at eight. Whatever may be the degree of conceit in the business, *we believe it is a fact, that more children are born and live at seven, than at eight months of utero-gestation.*"

That this belief was once very general is readily admitted; but I had presumed that, among medical men, the opinion of the greater vitality of seven, than of eight months children, had been abandoned since the time of Mauriceau; who, in order to ascertain the fact, had numerous observations made, by Madame de la Marche, the celebrated midwife of the Hotel Dieu, at Paris, the result of which was a conviction on the part of Mauriceau, that "*more than one half of those who are born at eight months will live, while of those born at seven months very few survive.*"

As an erroneous persuasion on this subject must necessarially, on some occasions, essentially influence our practice, it is of importance, should any facts be known, which invalidate Mauriceau's testimony, that they should be made public; but I am very scepticle as to the existence of any such facts. The experience which I have had, goes to confirm Mauriceau's statement. I have now lying before me, a list of premature births, in which the period of utero-gestation is distinctly marked. The list amounts to thirty-six cases of eight months children, and thrity-four of seven months. Of the *thirty-six* eight months children, there died during the month of child-bed only *eight;* but among the *thirty-four* seven months children, there died within the month—*twenty-one.*

It may be proper to remark, that the above are, all, cases of single births; but the observation holds good, and nearly in the same proportion, in twin cases. I observe, likewise, that of the children *still-born*, a much greater proportion were at seven, than at eight months of utero-gestation. As I know how desirous you are of establishing facts, I feel assured that you will excuse me for troubling you with this statement.

I remain, dear Sir, your's faithfully,
SAMUEL MERRIMAN.

34, *Brook Street, Grosvenor Square,*
September 13th, 1823.

ULCERATION OF THE CÆCUM.

At page 470 of our last number we gave some particulars of a curious case of ulceration of the cæcum communicating with an external opening in an abscess of the groin. The case was transmitted to us by an intimate friend, the brother of the patient, and without the names of any of the parties concerned. Supposing the particulars had been furnished by one of the medical attendants, we published it as it came to hand; adding, however, the query at the end. We have since been sorry to learn that the *history* of the case was not correctly stated in some respects, and that in consequence of this, and the mode of wording the case, the surgeon in charge imagined there was an insinuation thrown out against the fidelity of the minutes of dissection. We have only to declare that *we* never entertained such a suspicion, or threw out such an insinuation. If the case can bear such a construction, we

confess ourselves incapable of perceiving where it lies. In order, however, that our readers may judge, we here give the history and dissection in the words of the surgeon himself.

"Mr. S. consulted me in the beginning of May 1823, concerning a tumor in the upper part of the right groin, which appeared to be formed by a mass of enlarged lymphatic glands, situated within and above the middle of Poupart's ligament. It soon became evident that suppuration had begun to take place, and the tumour was fomented and poulticed. On Sunday morning, June 1st, the patient sent to me a message that the abscess had burst, and that he was desirous that I should visit him at his own lodging. I found that the abscess was discharging an offensive discoloured pus through a small opening. Conceiving it to be desirable that the matter should have a free exit, I introduced a small director through the ulcerated opening and under the skin, and made the opening somewhat larger by cutting on the director with a lancet. This was followed by a further discharge of offensive matter. In the evening of this day Mr. S. was so well that although I had requested of him to remain in bed, I found him sitting up in his drawing room. On the following day, June 2d, he continued well, and was desirous of going into the country, to which, however, finding that the discharge was discoloured, and had a feculent odour, I did not consent. On the 3d of June, he observed after taking a draught of decoction of bark, that that liquid escaped at the orifice in the groin, which stained the linen with the colour of the medicine. This seemed to excite in his mind a great degree of anxiety; and from this time there was a good deal of disturbance of the general system. The pulse became frequent, the tongue was slightly furred, and he was very restless. It was observed that liquids taken into the stomach soon passed out at the external opening of the abscess, blended with feculent matter; nevertheless, solid feculent evacuations continue to take place daily in the usual manner. On Sunday, June 8th, the constitutional symptoms became aggravated. The pulse was more rapid, and the tongue was more furred. On Monday, June 9th, he was still worse, and on the following morning he began to sink, and expired about one, P. M.

"*Appearances on Dissection.*—In the lower part of the abdomen, immediately above the middle of Poupart's ligament, there was a cluster of enlarged lymphatic glands connected with the abscess. The ulceration which had taken place in the formation of the abscess had extended into the cæcum, in consequence of which there was a large opening forming a communication between the cæcum and the external wound.*

"The inner membrane of the intestine in the neighbourhood of the ulceration, to a considerable extent, was in a state of inflammation; being of a very dark colour, in consequence of the vessels being loaded with blood. There were no other appearances of disease in the abdomen.

"In the thorax the lungs were found unusually turgid with blood; and the surface of the right lung toward the posterior part was covered by a thin layer of coagulated lymph. In the cavity of the right pleura there were about six ounces of serous fluid."

It will be seen that defects or omissions in the case, as originally published are—First, It was *not* stated that the tumour had the appearance of being formed (as it turned out to be) of a mass of enlarged lymphatic glands in the groin. Secondly, it was mentioned that the tumour was *opened*—whereas, the abscess *burst spontaneously*, and the opening was merely enlarged superficially afterwards.

When we queried, whether there might not have been originally a hernia? we alluded to the hurt formerly received when jumping off a coach at Edinburgh, and never entertained, for an instant, the idea of there being a hernia when the abscess was opened. We conceived it possible, that had there been a partial hernia in the beginning, there might have remained some adhesion of the gut in the neighbourhood, to account for its partaking in the

"* Of course the mass of enlarged glands were adhering to the cæcum at their posterior surface."

ulceration when the glands became suppurated. This was the idea that floated in our mind, and we never had the most remote intention of attributing blame to any person concerned. Neither did we ever entertain a doubt of the fidelity of the minutes of dissection. Since the publication of the case, we have seen a gentleman of talent and integrity, who was a witness of the examination, and vouches for its scrupulous correctness.

In the early part of January, 1824, will be published some Lithographical Plates of the Conformation of the Heart, by H. SEARLE.

The following work came too late for our Bibliographical Record.

(No. 28.) An engraved Representation of the Anatomy of the Human Ear, exhibiting in one view the external and internal parts of that Organ, in situ. Accompanied with a Plate of the Outlines and References, with copious Explanations. To which are added, Surgical Remarks on introducing the Probe and Catheter into the Eustachian Tube by the Nostril—on the Operation of puncturing the Membrana Tympani—and a synoptical Table of the Diseases of the Ear, their Classification, Seat, Symptoms, Cause, and Treatment. The whole designed as a Guide to Acoustic Surgery. By THOMAS BUCHANAN, C. M. Licentiate of the University of Glasgow, corresponding Member of the Phrenological Society of Edinburgh, and Surgeon to the Hull Dispensary for Diseases of the Eye and Ear. Folio, pp. 42, with plates. Price 12s. 6d. boards. London, 1823.

☞ *An account of this Work in our next number.*

A German translation of Dr. W. Philip's Work on Indigestion, by Dr. Hymans, has appeared at Rotterdam, in the present year.

Dr. Hasper, of Leipzig, has published a translation of the same work.

Transactions of the Associated Apothecaries. In our review of this work it may be asked why we have not noticed the Introductory Essay occupying nearly 170 pages of the work. The plain answer is, that this Essay was printed *after* the rest of the work, of which we got an early sight, as a matter of favour; and thus the Introduction has been left unnoticed. We are free to confess, however, that we are not sorry this production of the subcommittee escaped us, for, in truth, we could not have said much in its favour.

CLAPHAM RETREAT.

We have examined, with much attention, this excellent establishment fitted up with great care and skill by Dr. Burrows. It is impossible not to admire the admirable accommodations, moral, medical, and domestic, which this institution affords to the unfortunate lunatic. Being superintended by a man of established reputation in medical science, it deserves, and we are confident it will soon obtain, the approbation and patronage of the profession.

DR. SMITH'S LECTURES ON MEDICAL JURISPRUDENCE.

We are glad to find, by a prospectus which has just reached us, that Dr. Gordon Smith, the ingenious author of a valuable work on forensic medicine, means to commence a course of lectures on the important subject of medical jurisprudence, "in which the prominent object will be to illustrate the application of the medical sciences to questions that come before the courts of justice concerning the human frame." If the utility of *writings* on political medicine be allowed—and it is now universally allowed—that of lectures must be still more useful, in consequence of the *illustrations* they afford of the various subjects discussed—and the experiments they admit, of, which cannot be shown in books.

We think such an undertaking must ensure the patronage of the profes-

sion, as soon as it is commenced and sufficiently known. It is Dr. G.'s intention to begin in the first week of January, and to give about 40 lectures in the course of three months. The time and place will be advertised hereafter. Meanwhile he requests that those who mean to favour the undertaking by their attendance will have the kindness to notify the same to the medical booksellers—which notification will be by no means binding on them, though it will enable the lecturer to make suitable arrangements for the occasion.

DR. HARRISON TO THE EDITOR.

DEAR SIR, *Holles Street, Cavendish Square, Nov. 20th*, 1823.

Having accidentally read, in your Review for September, some animadversions upon my picture, lately exhibited *in* Somerset House, I request the favour of you to publish the following statement, that your readers may be enabled to form a clear opinion upon the subject.

I had an opportunity to confer an act of civility upon Mr. Shee, which he desiredto return, by presenting me with my portrait. Under these circumstances, and placing the greatest confidence in his professional skill and elegant accomplishments, I did not presume, first or last, to give an opinion, much less to interfere with any of the arrangements. The design, the execution, and even the idea of showing the picture in Somerset House, were all Mr. Shee's;—he is therefore the gentleman to be referred to, for any supposed defect, in the plan, taste, or composition of the piece.

I have sent this letter for insertion in the next number of your Journal, anticipating your readiness to give it a place there, in order to maintain the impartiality of your Journal, and to perform an act of justice towards,

dear Sir, Your obedient humble Servant,

EDWARD HARRISON.

☞ We consider the above explanation as perfectly satisfactory, and are happy to find that Dr. Harrison has exonerated himself completely from the charge of bad taste which was brought against the picture alluded to.—EDITORS.

INJECTING MACHINE FOR THE STOMACH. OR BOWELS.

For many months past we have been in the habit of employing Mr. Read's patent injecting apparatus, which is so small as to be carried in the waistcoat pocket, and yet so powerful as to throw fluids to a great distance. The object of our present notice, however, is to inform our readers that Mr. Read has adapted to the instrument a flexible elastic tube most admirably calculated for throwing liquids into the stomach, and then extracting them, in cases of poisoning. We have attentively examined the instrument, and we know it is approved of by Sir Astley Cooper, and some of the first surgeons in this metropolis. We think it of so much importance, that we seriously recommend it to every private practitioner.

It may be procured of Mr. Pepys, Instrument Maker, 22, Poultry; Mr. Stoddart, 401, Strand; and Mr. Thompson, Great Windmill Street, Haymarket.

We observe by the last list of the Royal College of Physicians that the name of Dr. Thornton has been struck off. We think Dr. Thornton's conduct, in aiding the Whitlaw imposition on public credulity, richly deserved this mark of disapprobation—as we observed several numbers back in this Journal. Sincerely do we hope that immoral as well as unprofessional conduct shall be often served in this way in future.

Nos. 11, 12, 13, and 14, of this Journal are entirely out of print. The back numbers will either be re-printed, or a new series commenced with the next volume. The latter is more probable, as very few remain of any of the back numbers from No. 1 to No. 10.

Contents

OF

No. 16. Vol. IV. for MARCH, 1824.

ART. I.

M. Tacheron's Pathological Researches - - - - 743

II.

TRANSACTIONS OF THE SURGEON-APOTHECARIES.

Art. 1. Mr. Shillito's Case of Spontaneous Rupture of the Uterus in the Seventh Month of Pregnancy - 762
2. Mr. C. T. Haden's Cases of Poisoning - - 765
3. Mr. Powell's Case of Injury to the Upper Jaw - 766
4. Mr. Rodd on Belladonna externally - - - 766
5. Mr. Hunter's Case of Aortic Aneurism - - 767
6. Dr. Kerrison's Communications - - - 767
7. Mr. Evans's Collection of Mal-Practices - - 768
8. Mr. Evans's Case of Poisoning, &c. - - - 768
9. Mr. Sandwith on Venous Congestion - - - 769
10. Mr. Newnham's Case of Unusual Utero-Gestation - 771
11. Dr. Wallis on Colchicum Autumnale - - - 771
12. Mr. Haden on Lameness of the Foot - - - 772
13. Mr. Haden (of Derby) on Club-Feet - - - 773
14. Memoir on the late Mr. Morel - - - 773

III.

Reports of the Glasgow Asylum for Lunatics - - 775

IV.

MEDICO-CHIRURGICAL TRANSACTIONS, VOL. XII. PART II.

1. Mr. Brayne on Biliary Calculi - - - - - 791
2. Mr. Henry Earle on Local Irritation - - - - 793
——— on Diseases of the Lips - - - 794
——— on Affections of the Face - - - 796
——— on Affections of the Prepuce - - 797
——— on Chimney-Sweepers' Cancer - - 799
3. Mr. Hammond on Destruction of the Fœtal Brain - 800
4. Dr. Roots on Bronchocele - - - - - 801
5. Dr. Kerrison on Dilatation of the Urethra - - - 802
6. Sir Astley Cooper on Extraction of Calculi - - 803
7. Dr. Gregory on Smallpox post Vaccinam - - - 806

V.

. M ll Hall on Semeiology - - - - - 811

VI.

Mr. n's Life of Mr. Hey - - - - - 827

VII.

PHRENOLOGY.

ctions of the Phrenological Society of Edinburgh
2. logical Journal of Edinburgh - - - - 847
Art. 1. r. George Combe's Preliminary Discourse - 848
2. Dr. Poole's View of Spurzheim's Lectures - 851
3. Mr. Scott on Various Functions and Faculties - 854
4. Mr. Combe on Injuries of the Brain, &c. &c. &c. - 855
5. Answers to Dr. Barclay's Remarks on Phrenology - 868
6. Dr. Patterson on the Phrenology of the Hindoos - 874
7. The New Phrenological Journal of Edinburgh - 876

VIII.

Mr. Shaw on Spinal Distortions - - - - - 882

IX.

QUARTERLY PERISCOPE.

OR,

SPIRIT OF THE PUBLIC JOURNALS.

Remarks on the Increase of Medical Journals - - - 911

I. PATHOLOGY.

1. M. Andral on Diaphragmatic Pleuritis - - - - 912
2. Dr. Gregory's Case of Encysted Tumour - - - 915
3. On the Fever in the Bann and at Ascension - - 916
4. M. Magistel on Hyprophobia - - - - 917
5. On Delirium Tremens vel Ebriositatis - - - 918
6. Scirrhous Cæcum mistaken for Aneurism - - - 919
7. Sudden Death with fallacious Symptoms - - - 920
8. Dr. Davy on Pneumo-Thorax - - - - - 922
9. Cases of, and Remarks on, Blue Disease - - - 924
10. Dr. Prichard on Paralysis - - - - - 926
11. Dr. Robson on Cholera Epidemica - - - - 927
12. Mr. Denton on Hæmatemesis - - - - - 928
13. Dr. Forbes on Pneumonia - - - - - 923
14. Mr. Gaitskell on Phthisis Pulmonalis - - - 929
15. On Concussion of the Brain, by Mr. Shipman - - 929
16. Case of Internal Hæmorrhage, Mr. Lloyd - - 930
17. Mr. Pretty's Case of Hydatid simulating Ascites - - 930
18. Expulsion of a Portion of Intestine per Anum - - 932
19. Tetanus - - - - - - - - - 933

20. On the Treatment of Acute Rheumatism - - 933
21. Mr. Swallow on Carbuncle - - - - - 934
22. Physiological Pathology - - - - - - 934
23. Dr. Carter on Diabetes - - - - - - 935

II. THERAPEUTICS.

1. Injection of Opium into the Veins - - - - 935
2. Dr. Maxwell on Constipation of the Bowels - - 937
3. Mr. Sprague's Pharmaceutical Formulæ - - - 938
4. Corrector of Putrefaction - - - - - 939
5. Opium in Acute Mania - - - - - - 939
6. Prussic Acid in Dyspepsia - - - - - 940
7. Leeches to Internal Surfaces - - - - - 940
8. Obstruction of the Bowels, Remedy for - - - 941
9. Mode of Arresting Salivation - - - - - 941
10. Purpura Hæmorrhagica - - - - - - 941
11. Blood-letting in Hydrothorax - - - - - 942
12. Supposed Hydrophobia - - - - - - 942
13. Strychnine and Brucine - - - - - - 944
14. Degeneration of Muscle - - - - - - 945

III. SURGERY.

Surgical Operations - - - - - - 945
1. Œsophagotomy - - - - - - - - 945
2. Wry Neck - - - - - - - - - 946
3. Amputation at the Hip Joint - - - - - 947
4. Amputation, General Remarks on - - - - 949
4. (bis) Rupture of the Axillary Artery - - - 951
5. Extravasation within the Cranium - - - - 952
6. Fracture of the Cranium (Mr. Baker) - - - 953
7. Tourniquets in Amputation - - - - - 953
8. Ligature of the Subclavian Artery - - - - 954
9. M. Richerand on Varicose Veins - - - - 954
10. On the Diagnosis of Fractures by the Stethoscope - 954
11. Remarkable Case of Tracheotomy - - - - 955
12. Case of Spontaneous Cure of Femoral Aneurism - 955
13. On Elongation of the Uvula - - - - - 956
14. Acupuncture (Mr. Churchill) - - - - - 956
15. Mr. Liston's Case of Remarkable Tumour removed - 957
16. Dr. Tweedale and Mr. Finch on Acupuncture - - 958
17. Operation for Subclavian Aneurism - - - - 958
18. Suppression of Urine - - - - - - 959
19. Retention of Urine - - - - - - 959
20. Taliacotian Operation - - - - - - 961

IV. MIDWIFERY.

1. Dr. Douglas on Extraction of the Placenta - - 961
2. Obstetric Delinquency - - - - - - 961
3. Dr. Cumin on Vesico-Vaginal Fistula - - - 962

4. Dr. H. Davies on Puerperal Convulsions - - - 963
5. Cæsarian Operation - - - - - - - 964
6. Division of the Symphysis Pubis - - - - 965

V. PHYSIOLOGY.

1. Physiology of the Urinary Secretion - - - - 965
2. The Circulation of the Blood - - - - - 966
3. Physiology of the Nervous System - - - - 966

VI. LEGAL MEDICINE.

1. Dr. Castaing's Case considered - - - - 968
2. Forensic Phrenology, curious case of - - - - 969
3. Homicide, curious Trial for - - - - - 969
4. Peritonitis resembling the Effects of Poison - - 970
5. Poisoning by Nux Vomica - - - - - 972
6. Infanticide, Trial for - - - - - - 972

X.

The Lancet; or the Property and Privileges of Lecturers, Medical Societies, and Hospitals considered - - - 973

XI.

EXTRA-LIMITES.

1. Dr. Musgrave on the Question of Contagion in Yellow Fever in answer to Sir Gilbert Blane - - - 979
2. Dr. William Burnett on Mercurial Vapour - - 1010

XII.

Bibliographical Record - - - - - - - 1015

XIII.

Miscellaneous Intelligence, &c. &c. - - - - 1019

TO THE PUBLIC.

Almost the whole of the back Numbers of this Series being now out of print, it has been determined on to commence a New Series with the next Number, *but without any deviation from the plan of the present Series*. This will enable New Subscribers to commence with complete sets, without any expense of purchasing back Numbers; while to the holders of the present Series, a spare Title Page will be given with each Volume, so as to form an unbroken Series with the present.

Each Number of the New Series will contain 250 pages, instead of 224, without any increase of price, and all *Extra-Limites* papers shall be, as hitherto, beyond the above boundary, and gratis to the Public. Plates and illustrative wood cuts shall accompany each Number, and in short no labour or expense shall be spared to repay the unexampled encouragement which the public has extended to this Review.

London,
25th February, 1824.

THE

Medico-Chirurgical Review,

AND

JOURNAL OF MEDICAL SCIENCE.

(Analytical Series.)

"Nec Aranearum textus ideò melior, quia ex se fila fingunt; nec noster vilior, quia ex alienis libamus, ut apes."

VOL. IV.] MARCH 1, 1824. [No. 16.

I.

Recherches Anatomico-Pathologiques sur la Médecine Pratique. Par M. TACHERON.

[Second Analytical Article—Continued from page 511.]

SECT. 1. *Enteritis.*—M. TACHERON defines Enteritis to be; "inflammation of the whole or a part of the mucous membrane —or of all the membranes (ou de toute l' épaisseur) of the small or large intestines." According as the phlegmasia predominates in one or other of these structures, or parts, the characteristic symptoms will appear; especially if the disease be acute.

Enteritis may be occasioned by intus-susception—by indurated fæces—by spasm—external pressure—herniæ—poison —by acrid substances taken into the stomach—drastic purgatives—even gentle laxatives, given untimely—by metastases, or translations of external inflammations—by unwholesome provisions—cold and moist atmosphere—sometimes, by a hot and humid climate. This etiological sketch is sufficiently correct. Our author observes that, when the symptoms of inflammation are the preponderating ones, the disease is simply termed enteritis—when the motions do *not* contain blood, it is diarrhœa—but when the dejections are bloody, accompanied by griping and tenesmus, the term dysentery is applied. We consider this to be loose, and somewhat incorrect pathology. Our observations and dissections have led us to conclude that, in proportion as the force of the inflammation was directed upon the peritoneal and muscular coats of the intestines, constipation prevailed—and, on the contrary, when irritation or inflammation was seated in the mucous membrane, diarrhœa or dysentery obtained.

Enteritis may prove fatal in a very few days—it may last a fortnight—and, finally, it may pass into a chronic state, and produce various organic lesions of the bowels. When the chronic phlogosis, for instance, has continued for a certain time in the mucous membrane, a disorganization is always very perceptible after death—generally in the form of a thickening of the membrane, sometimes of several inches in extent.

Case 1. A little boy, seven years of age, was taken ill on the 1st of June, 1818, after a sudden mental emotion, and entered the HOPITAL DES ENFANS on the 11th of the same month, presenting the following, among other symptoms, viz. face flushed—violent headach—mouth dry—tongue yellow, and red in the middle—urgent thirst—frequent cough—pain in the right side of the thorax—abdomen tense and painful—skin dry and hot—pulse quick and sharp—diarrhœa. The remedies consisted of emulsions, a few leeches, and an occasional lavement. The symptoms persisted, with very little alteration, till the 22d of June, when death took place. Delirium had been a prominent symptom during the greater part of the time.

Dissection. The membranes of the brain were perfectly healthy—the substance rather firm, but not injected—a very small quantity of serous fluid in the lateral ventricles. The thoracic viscera were in a state of perfect integrity. The mucous membrane of the stomach was red, inflamed, but not disorganized. The mucous membrane of the intestines presented several patches of deep ulceration, and numerous fungous granulations, especially near the cæcum: the other abdominal organs were sound.

In the above case we see an example of violent disorder of the head and chest, without any trace of inflammatory action on dissection. There is, therefore, every reason to believe that the functions of the head and lungs were deranged from that intimate sympathy which exists between the abdominal viscera (especially their mucous surfaces) and the sensorium, heart, respiratory apparatus, &c.

Two cases are next related by M. Tacheron, where there was unequivocal enteritis—one of colonitis—cured by very gentle means—but in each case a cutaneous eruption took place, which evidently assisted the curative measures.

Case 2. A female, aged 62 years, had been subject for six years (since the cessation of the catamenia) to an erysipelas, which came out every month, on some part of the body, and lasted four or five days. Latterly, this erysipelas was superseded by a periodical epistaxis—and this last had, also, ceased for some months, without any apparent substitute. On

the other hand, she became subject to strong palpitations, violent headaches, pains in the abdomen, (where she had an umbilical hernia) loss of appetite, inability to lie on her back or left side without sense of suffocation, difficult breathing, small and quick pulse, flushed face, thirst, dryness of skin, general debility. These symptoms continued, or increased, for ten days after the patient's entry into the hospital, and she then died in a paroxysm of suffocation.

Dissection. The pleura, on the left side, was adherent to the lungs, and somewhat thickened. The parenchyma of the lungs gorged with blood. The bronchia slightly phlogosed. The heart was enlarged, the right ventricle attenuated in its parietes, the lining surface of which was the colour of lees of wine. Liver sound. Stomach striped on its internal surface; several black patches, under which were found ulcerations of the mucous membrane of the small intestines—a large ulceration in the posterior part of the cæcum. The body of the uterus scirrhous—the cervix gorged and red, but still soft, with a tubercle, the size of a nut, imbedded in its substance. On the upper part of the right ovary was a transparent cyst, the size of a pigeon's egg.

The above presents a melancholy picture of what too frequently occurs to females, after the turn of life. Much might be done in these cases, if taken early, by regulated diet, attention to the functions of the digestive viscera, and gentle, but periodical evacuations, till the balance of the constitution became regularly poised.

Case 3. Robert Filiol, (in M. Chomel's wards) 32 years of age, had been subject, about the period of puberty, to a datrous eruption around the umbilicus, which recurred and disappeared, alternately, for several years. On the 6th of April, 1816, being exposed, on a journey, to great vicissitudes of heat, cold, and wet, he felt extreme lassitude, followed by anorexia, pain and tension in the abdomen, with constipation, inclination to vomit, and vomiting of every thing swallowed. The urine was much diminished in quantity. These symptoms went on, without intermission, by day and by night, attended with great emaciation, till the 19th of the same month, when he presented the following phenomena: *viz.* The pain in the abdomen, though not so acute as it had been, was still severe, and was always exasperated by swallowing any thing. The inclination to vomit, and the gazeous eructations continued, as, also, the most complete constipation. The abdomen was very much swelled, and a fluctuation could be felt. The skin was yellowish—the countenance was expressive of great distress—the pulse small, quick, and weak. These symptoms went on, and the patient, in two or three days from this period, died.

Dissection. The jejunum was found enormously dilated, and a kind of cylindrical tumour containing an immense volvulus, or rather an invagination, presented itself at the lower extremity of this dilated portion of intestine. The invaginated folds of bowel were glued together by adhesive inflammation. At the commencement of the invagination there was found a small oblong tumour growing out from the internal surface of the gut, in the shape of one's thumb, and this doubtless caused an obstruction to the passage of the fæcal remains along the gut, with dilatation, and the subsequent volvulus.

Case 4. Bernard, 33 years of age, had felt, for eighteen months, a dull pain in the right hypochondrium, which often obliged him to incline his body to that side, but which occasioned no particular alteration in his health. In addition to the above, he became suddenly affected with sharp pains about the navel and kidneys, which he compared to a bar through the abdomen. From this time he presented the following symptoms, viz. loss of appetite; eructations after eating, but without nausea or vomiting; dull pain in the epigastric region a little to the right, increased after eating; borborygmi; habitual constipation; great flatulence, forming sometimes a kind of ball in the abdomen, after the dispersion of which there were lancinating pains in the part. He now entered the Hotel Dieu, where he continued two months, with little variation from the above state, except progressive emaciation. He got tired, and took his departure from the Hotel Dieu, and shortly afterward entered La Charite, where the following phenomena were registered. Two or three hours after meals a pain in the region of the kidneys—unpleasant sense of fulness in the stomach—a prominence in this part—eructations—inclination to vomit, and soon afterward actual vomiting of greenish matters mixed with the food. These vomitings took place almost every day from one to five or six times, followed by cessation of the sense of fulness in the epigastric region. During this time the dejections were difficultly procured, and composed of hardened matters, at first black, and afterward yellowish. The emaciation made great progress. From this time, a tumour, very hard to the touch, was abundantly evident in the epigastric region. The symptoms above described continued for several months, till, worn out by his sufferings, he at length was happily released from this cruel state of existence.

Dissection. The thoracic organs were sound. In the abdomen was some blackish fluid. Nothing particular was observable in the stomach. The duodenum was of a black colour, mixed with red points. Its coats were about half an inch in thickness, and, when cut into, presented a lardaceous appearance. The interior of this organ did

not appear so much diseased as the exterior. Its cavity was large, and its folds very prominent. The duodenum, which was itself scirrhous, was projected forwards by a tumour springing from the mesentery, twice the size of a man's fist, of an albuminous nature, and very compact consistence, having contracted adhesions with the spleen and pancreas, but without tendency to suppuration or ulceration. The pylorus was sound, the liver black, and the gall-bladder gorged with green bile.

Cases of this kind are exceedingly puzzling to the practitioner, and often lead him into false prognosis and diagnosis, as we have many times seen. Every dissection, as connected with the history of the case, is therefore very valuable.

Case 5. Chevalier, 42 years of age, had been subject for a long time to epistaxis, which became suppressed, and was followed by cerebral congestions, relieved by frequent blood-letting. In the month of September, 1816, he became affected with constant pain in the stomach, bad taste in the mouth, indigestion. In the beginning of January, 1817, the pains in the stomach increased—the abdomen became swelled—the digestion was extremely difficult—flatulence distressing; but no vomiting or constipation. Admitted into the hospital on the 5th of January, he presented the following phenomena, viz. pallid countenance; air of suffering; restlessness; distention of the abdomen; epigastric region shining and tender; diarrhœa; pulse small and frequent. In a few days after his entry into the hospital the patient experienced an attack of gastro-intestinal irritation, recurring every second day. At this time a small tumour could be felt in the left hypochondrium. By the end of the month the gastro-intestinal irritation had subsided; but some cough came on. On the 5th of February the symptoms were reproduced, with unusual pain in the epigastrium. There was cough, with oppression on the chest; expectoration; great pain in the epigastrium, with more prominence of the tumour. In the beginning of March there was a temporary melioration of the gastro-intestinal irritation, cough, and epigastric pain, which continued for three weeks, when great distention of the abdomen and oppression recurred. In the commencement of April all the symptoms attained a great degree of aggravation, accompanied by difficult respiration, cough, and copious expectoration of a purulent kind. On the 10th he died, in a state of great emaciation.

Dissection. The chest sounded well on the left, but badly on the right side. In this side of the thorax there was an effusion of three pints of serum, the pleura costalis and pulmonalis being very red,

and slightly thickened. The lung of this side hepatized, and condensed to one-third of its ordinary volume. The bronchia were red and filled with mucosities. All the abdominal viscera were confounded in a mass which it was most difficult to unravel. The peritoneum was the seat of innumerable tubercles, many of them in a state of suppuration. The great epiploon was in a state of scirrhous thickening, and adherent to the stomach and liver. All the intestines were glued together, and fixed in their places immoveably.

Such cases as the above are not of very rare occurrence. We have been present at, at least, a dozen of such dissections, and the treatment of some of the cases fell under our own care. These lesions are, in our opinion, the products of inflammation modified by some peculiarity of constitution not yet clearly understood. Dr. Baron would class the above disease, we apprehend, under the head of tuberculous accretions of an hydatid origin.

Case 6. Antoine Gaillard, 48 years of age, had been, for some years, subject to stomach complaint. About a year ago he became affected with violent colics, accompanied by bloody stools. These symptoms got worse, and he suffered dreadful pain whenever evacuations took place from the rectum. About six months ago he passed a large quantity of black fetid blood by stool, which seemed to mitigate, for a time, his sufferings. But soon after they returned with such intensity that he could not pass a motion without uttering the most piercing cries. He was received into the hospital on the 9th of February, offering the following symptoms, viz. pale and emaciated countenance—abdomen swelled and tender, especially in the hypogastric region—no appetite—digestion tolerably good—stools liquid and bloody, and passed with great pain, and sensation of a tumour in the rectum—difficulty in making water—fever. These symptoms went on increasing till the 23d of March, when he died.

Dissection. The thoracic organs sound. Liver, stomach, and small intestines healthy—large intestine filled with hard fæcal matters—the rectum greatly dilated, and at an inch from the anus a large cancerous ulcer three inches in extent, with hard and elevated edges. The parietes of the gut were scirrhous.

We have passed over a great number of cases where recovery took place; because continental treatment can create little interest on this side of the channel. We have, on the other hand, presented all the more interesting cases where dissection came to the elucidation of the pathology of the disease. We now come to the urinary organs.

Sect. II. *Catharrhus Vesicæ.* This is defined by M. Tacheron, to be inflammation of the lining or mucous membrane of the ureters, bladder, and even the urethra, attacking men rather than women—and old age, rather than the younger periods of life. Among the causes, he enumerates the use of cantharides, acrid diuretics, urethral hæmorrhages, colds, and suppression of the perspiration, retropulsion of cutaneous maladies, violent mental agitations. There are other causes which produce chronic vesical catarrh, viz. a stone in the bladder, or other foreign body—abuse of bougies—enlargement of the prostate gland—anxiety of mind—sedentary habits—gonorrhœas—abuse of venereal indulgencies, and any other cause which determines an inordinate irritation to the parts in question.*

The acute vesical catarrh usually continues twenty or thirty days, ending in resolution, or, what is more frequent, in chronic catarrh, subject to irregularities in strength and duration, but generally very obstinate in bending to treatment. Two cases of acute vesical catarrh are related, and both terminated safely. We shall give a short abstract of these.

Case 7. Louis Gaille, 30 years of age, of strong constitution, was seized on the 4th of April, 1817, after exposure to cold when heated, with shiverings, pains in the back and hypogastric regions, soon after which he felt acute pain in making water, the urine presenting a flocculent and glairy sediment. He entered the hospital on the 10th, when the following symptoms were noted, viz. headach—abdominal pains, with inclination to make water—thirst—constipation—great pain in making water—frequent erections and involuntary emissions of semen—pulse full and frequent—hypogastrium painful on pressure, and tense. Ten leeches to the anus—semicupia—ptisans—aperients—enemata. From the 11th till the 12th very little alleviation of the symptoms. 13th. The abdominal pains less acute; but in the perineum they were very violent. These were relieved by an emollient cataplasm to the perineum, and warm clysters. The symptoms progressively declined, and he was discharged cured on the 27th of April.

Case 8. Alexander Crance, 32 years of age, had had blennorrhagia for some years, which was suddenly sup-

* We would just hint to M. Tacheron that he has copied almost verbatim the words of Renauldin in this place, without acknowledgment.—*Rev.*

pressed in April 1818. On the 22d of May he entered the Hotel Dieu, presenting the following symptoms, viz. difficulty in making water—sense of burning heat at the neck of the bladder, after the discharge of urine—tension and swelling of the hypogastrium. The catheter was introduced, and drew off a large quantity of urine, depositing a copious glairy sediment. Diluents, warm baths, &c. for six days. The symptoms gradually declined, and terebinthinate medicines were usefully employed when the inflammation had subsided.

Case 9. *Chronic Catarrhus Vesicæ.* Raphael Bouvier, 52 years of age, was affected at the age of 30, with acute pains in the bladder, propagated to the loins, with dysury, mucous, glairy, and gravelly urine. These symptoms he said, declined in a month under diuretic medicines; but they afterward recurred, from time to time, with less intensity, and always giving way to remedies. In the month of May, 1811, the symptoms returned with more intensity than ever, and the usual remedies failed. Received at the Clinique the 29th of June, 1811, he presented the following symptoms, viz. frequent desire to make water; with difficulty of expelling it—great quantity of glairy sediment in the urine—constant pain in the bladder. The catheter was introduced—diuretics—emollients—lavemens—warm baths. The latter alone gave any relief. The complaint did not make progress till the middle of July, from which period the strength declined—the appetite failed—the inclination to make water became constant—sleep vanished—pulse became small and frequent—delirium supervened—and death closed the scene on the 1st of August.

Dissection. The bladder, when removed from the body, preserved its conical form, and offered great resistance to the pressure of the fingers. Its volume was considerable, and its colour a brownish red. When cut open a large quantity of yellowish purulent looking fluid, of a very disagreeable odour, issued. The parietes of the organ were of an extraordinary thickness and density. The ureters were greatly dilated.

Case 10. Gautrin, 52 years of age, had been affected with blennorrhagia for several years, but until November, 1816, he did not experience much inconvenience. At this period the water became ropy and mucous, with pain and difficulty in rendering it—the abdomen was sensible to pressure. A sound was kept pretty constantly in the urethra for a month. Each time it was withdrawn the urine flowed freely. After this period the quantity of glairy mucous increased more than ever,

and he entered the Hotel Dieu on the 19th May, 1818, presenting the following symptoms, viz. urine scanty, ropy, and mucous, passed with difficulty—diarrhœa—abdomen tense and painful—features sharp—tongue dry—cough, and pain in the left side—breathing embarrassed—pulse full and strong. Catheterism—mucilaginous drinks—warm bath. 20th. Abdomen more painful—diarrhœa increased. Twenty leeches to the hypogastrium. No melioration of the symptoms—the respiration more difficult. 25th. All the inflammatory symptoms much exasperated. *Four leeches to the hypogastrium*—diluents—lavemens, &c. 26th. Constant groaning. 27th. Twenty leeches to the chest—a blister. Died in the evening.

Dissection. Several ounces of pus in the peritoneal cavity, and several false membranes adherent to the small intestines—the internal surface of the bladder was of a dark colour, and in its parietes, at the back part, there was a large purulent cavity capable of holding a pullet's egg, situated between the muscular and mucous tunics, communicating with the general cavity of the bladder by several openings, through one of which the point of the sound had passed. The commencement of this false passage was discovered on the right side of the prostate gland, which was of double the natural size. The kidneys were tuberculated.

Case 10. Louis Devaux, 74 years of age, experienced in June 1817, slight pains in the loins, lower extremities, and hypogastric region, with frequent desire to make water, and pain about the neck of the bladder. Towards the middle of October of the same year, these symptoms increased, and he began to lose his appetite. On the 30th of October he was received into the Hospice, presenting the following symptoms, viz. fixed pains in the hypogastric region—tongue red at the edges and coated in the middle—bad taste in the mouth —nausea—hiccup—abdomen slightly distended—stools canty—frequent desire to make water—urine yellowish, and containing much whitish mucus—pulse feeble, and quick. *Emollient drinks.* Slight melioration of the symptoms. *4th November.* A colliquative diarrhœa—intense thirst—great prostration of strength—tendency to faintness. 20th. Vomits a drink—great heat of skin—pulse very quick—died on the 6th of November.

Dissection. Thoracic viscera perfectly healthy—some points of phlogosis in the small intestines—in the colon some actual ulcerations, with high edges— the kidneys, especially the left, of an extraordinary size, with here and there purulent depôts—the pelves the kidneys were greatly distended with a quantity of sanguino-

lent and fetid sanies—the bladder contained a similar liquid—its coats four times their natural thickness.*

We have now presented the reader with all the pathological facts brought forward in the volume, as ascertained by dissection. Our author's therapeutical reflections at the end are few. He recommends the warm bath, mucilaginous drinks, and diluent regimen from the beginning. When the inflammatory symptoms run high, then general and local bleeding is to be employed. Where the canal of the urethra becomes obstructed (which is very often the case) with thickened mucus, the catheter or bougie should be occasionally introduced, to prevent the bladder being irritated by distention and the presence of acrid urine. When the catarrhus vesicæ is dependent on a calculus lodged in the bladder, it is almost needless to observe, that no cure can be expected, till the cause is removed by an operation. In people beyond the age of 40—indeed in all people, the bladder should be sounded, in order to ascertain if a calculus be present. We recently saw a melancholy instance of the neglect of this, in the case of a gentleman who was three years under one of the first surgeons in this metropolis, for the treatment of catarrhus vesicæ. During all that time he never sounded his patient, but treated the disease as simply chronic inflammation of the mucous membrane of the bladder. The surgeon-apothecary in the country, where the gentleman resided, long suspected the presence of stone, but would not be permitted to examine, till after three years and more of great torture, when a very large calculus was discovered as the cause of the disease. The gentleman, then, came to town, and put himself under another surgeon, who confirmed the statement of the surgeon-apothecary; but the bladder was in such a diseased state, and there were such strong reasons to fear that actual ulceration existed, that an operation durst not be ventured on! Thus the time was lost for a successful operation by the overweening confidence of the London surgeon in his own diagnostic powers! Let this be a warning not to neglect the examination of the bladder in catarrhus vesicæ, whether the common symptoms of stone be present or not.†

When it is ascertained that a stone is not the cause of the catarrhus vesicæ, then it is of great importance to investigate

---

* Our author has not noticed an appearance in the mucous membrane of the bladder, which we have twice seen—namely, a developement of small glands in this tunic, which, when squeezed, pour out a quantity of glairy mucus, and from those glands scattered all over the interior of the bladder, the mucus deposited by the urine undoubtedly came.—*Rev.*

† The patient was operated on while this sheet was passing the press, and some hopes are entertained that the result may still be favourable.

what has been the original cause of the inflammation settling upon that part; for much of the success of the treatment depends on this investigation. Thus, if the patient had experienced a retrocession of some cutaneous eruption, it will be proper to act on the skin, so as to re-establish the irritation on the surface. There is great reason to believe that, in many instances, the vesical irritation is of a gouty or even rheumatic character, in which cases it is evident that the treatment should be greatly modified by a knowledge of the cause.

Catarrhus vesicæ, especially in old people, is very difficult of cure, since there appears to be a natural tendency to disease of the urinary organs in almost all people who have arrived at an advanced period of life. This was an observation of Hippocrates himself—"*Renum et vesicæ dolores difficulter sanantur in senibus.*" Although the mucous and glairy discharge tends greatly to produce debility, while the pain, irritation, and consequent want of sleep help to reduce the patient's strength; yet, when the disease does not depend on stone in the bladder, and is not accompanied by fever or much pain, it may go on for many years, and scarcely abridge the natural range of the patient's life. It is, however, at all times desirable to remove the disease, if possible. For this purpose the diet should consist almost entirely of the farinaceæ, and light animal food—especially the former. Every thing that has a tendency to act on the kidneys should be avoided, as horseradish, mustard, onions, &c. The water drank should be distilled water, as much less irritating to the bladder; and the urine should be frequently tested to ascertain whether it inclines to acidity or alcalescency. In the former case soda should be taken every six or eight hours—in the latter, the mineral or vegetable acids. Soda will, in general, be very useful, especially where there is a stone in the bladder, as it renders the discharge of water infinitely more free and painless. The decoction of uva ursi, (one ounce to the pint of distilled water,) with from half an ounce to an ounce of the tincture of henbane, a wine glassful twice or thrice a day, will be found a very useful remedy. It is of great importance in this disease to regulate the functions of the bowels, and to avoid strong purgatives. The patient should get into the habit of emptying the lower bowels by means of injections, and only use the mildest aperients when necessary. The hip-bath ought not to be neglected. Injections of tepid water, or of water, in which opium is dissolved, have often a very beneficial tendency, as the urine frequently acquires a very acrid character, and irritates the already too sensible coats of the bladder. It is doubtful whether any thing more is to be expected from injections than soothing

the bladder, and diluting the urine. Some medical men, however, have employed the liq. plumbi acet. dilut. with the view of repressing the discharge of mucus, and it has been said with benefit. Chopart, for instance, relates the case of an old man, who was fast wearing down with an excessive discharge of glairy mucus, and who was greatly benefited by injections of the above-mentioned liquid. But, viewing the discharge as a mere effect, and probably a salutary one of the local inflammation, we confess we should not place much confidence in repressing the effect without removing the cause.

Inflammation of the Serous Membranes.

These membranes, from the similarity of their texture and functions, have a considerable analogy in the nature of their diseases, as well as in the causes and treatment of those diseases. And, although it very seldom happens that the seat of inflammation is long confined to these structures alone, without being extended to the parenchymatous textures which they cover; yet it is undoubted that in the incipient stages of the phlogosis, and sometimes throughout the whole course of it, only the serous covering of an organ or part will be the seat of the disease. The attempt, therefore, to discriminate the symptoms of membraneous from parenchymatous inflammations should never be branded with the term "*useless refinement*," as has sometimes been done. It is as proper to ascertain the distinctions in the living as in the dead body—and where the disease is not complicated, this may generally be done. In most cases, however, or in the advanced stages of most cases, the subjacent textures become affected, and these react sympathetically on the functions of various other organs, thus producing obscurity and confusion in the diagnosis.

We must pass over the first two sections of this part of the work, on arachnitis, and on hydrocephalus acutus, in consequence of having treated so fully of these topics in several preceding numbers of the Journal. We must dwell a little on the following subject.

Sect. III. *Pleuritis.* This disease, described ever since the days of Hippocrates, has given rise to many controversies respecting its separate existence. It is well known that Cullen considered it as always complicated with pneumonia, or, at all events, that it could not be distinguished in the living body. But later physicians, and especially Laennec, have been more precise, and have proved, not only the separate existence of pleuritic inflammation, but shown that it is, in

general, accompanied by its appropriate symptoms. In a great majority of instances, however, it is complicated with inflammation of the subjacent structure. Like most other phlegmasiæ it is either acute or chronic. The former is much more easily distinguished than the latter; and yet the symptoms, even of the acute form, are not so unequivocal as might be expected. Thus the pain in the side, the impeded breathing, the fever, the dry cough, are not always pathognomonic of pleuritis; since, on the one hand, they may all exist without the pleura being inflamed;—and, on the other, the pleura may be in a state of phlogosis, without these symptoms being present. Thus, when the inflammation comes on slowly, it does not show the external phenomena presented during a sudden accession of the disease. Percussion of the chest will bring forth a dull sound, it is true—but then it is only in an advanced stage of the inflammation, and when some degree of effusion has taken place. Even here we cannot tell whether the dull sound proceeds from pleuritic effusion or parenchymatous induration. The pain in the side is equivocal—for we may have pleurodyne independent of inflammation. The hardness of the pulse was considered by Baglivi, who studied, with great care, the diseases of the lungs, as the least equivocal of all other symptoms of pleuritis. "*Pulsus duritiei est signum fere infallibile omnium pleuritidum. Si duritiem in pulsu deprehenderis, quamvis reliqua signa non adsint, pro certo habeas patientem laborare pleuritide.*" And yet Baglivi carried his diagnostic too far, for the veriest tyro knows that, "all other signs absent," the hardness of the pulse is no more an indication of pleuritis than of hepatitis, or any other inflammation of an interior organ. After all, it is but rarely that we can be deceived in acute pleuritis; but in chronic inflammations of that membrane the greatest difficulty obtains in the diagnosis. In fact, chronic pleuritis, with its accompanying effusions and false membranes, will go on in what may be termed a latent course for months or even years, without any very prominent symptoms. We shall quote a few cases from this section of M. Tacheron's work.

Case 11. Lecofre, 70 years of age, received a kick from a horse, which fractured his lower jaw. He was immediately taken to the Hotel Dieu, and there treated for the accident. But the patient was very irregular in his habits and regimen. Sixteen days after his reception in the hospital, he was observed sitting upright in bed, and appeared to be menaced with suffocation if he attempted to lie down. He passed the night in the sitting posture, complaining of slight pain in the right side of the chest, but had no cough. The pulse was mall and quick. He died the next day.

Dissection. Nearly two pints of yellowish fluid in the right cavity of the chest—the lung of that side compressed, but perfectly sound—the pleura coated with a layer of yellow albuminous matter, a line in thickness, and so organized as to be torn off in flakes. There was no other lesion in any part of the body.

It is quite evident that this albuminous layer and the serous effusion were of old date, although nothing of the kind was suspected. The following case is still more remarkable.

Case 12. François Fournier, having enjoyed perfect health previously, was seized on the 12th Vendemaire, after a debauch, with cold chills and difficulty of breathing. On the 14th he entered the Clinique, presenting the following symptoms, viz. face flushed—no headach—eyes injected and watery—respiration difficult—acute pain in the right side on inspiration—frequent cough—sanguinolent expectoration—abdomen tense, especially about the right hypochondrium and epigastrium, where there was tenderness on pressure—pulse small and concentrated—skin a little hot—two contusions, one on the hip, another on the shoulder, received during the debauch above mentioned.—*Ptisans.* Slight melioration during the first three or four days. 19th. A severe sore throat. *Gargles.* From this time there was great prostration of strength—decubitus dorsalis—strong action of the heart, with irregularity—pulse strong and intermitting. From the 19th to the 23d, there was a slight accession of delirium towards mid-day. He died on the 23d, the expectoration being mixed with blood. There was also blood in the urine.

Dissection. The right cavity of the chest contained upwards of three pints of a reddish yellow fluid—the lung of that side enveloped in a very thick false membrane of a yellow colour—the lung itself compressed into a small space between two pouches, filled with pus, one pouch adhering to the mediastinum, the other to the costal pleura—left lug sound—heart natural—liver rather enlarged—all the rest sound

We have no doubt that, in this instance, the whole of the above-mentioned ravages were the consequences of a fortnight's unchecked inflammation.

About fourteen years ago, we had opportunities of seeing, on an extensive scale, the effects of unbridled inflammation among Junot's troops returning from Portugal to France, in crowded transports, and in cold, wet, and stormy weather. They were severely affected with what was then termed *Pneumonia Typhodes*, and no bleeding was thought of. It was a fever with great determination to the lungs, occasioned by the inclemency of the skies, and the bad accommodations in the transports. We saw numerous cases where the rava-

ges, in ten days, were quite equal to those described by Tacheron. The lessons there taught, were of a melancholy but very instructive nature.—The following appears to have been a case of this kind.

Case 13. Charles B. 51 years of age, was seized on the 16th of September, 1809, with a cold chill followed by heat, afterward by headach, and fixed pain in the lower part of the left side of the chest, increased by inspiration. These symptoms continued till the 26th September, when he was received into the Clinique, presenting the following symptoms, viz. suborbital cephalalgia—sleeplessness—tongue dry and black—abdominal region tender—intense thirst—diarrhœa—respiration very much confined—cough severe—great fixed pain in the left side—pulse small, and not much accelerated. *A dozen of leeches to the pained side—infusion of bark, &c.* The symptoms went on increasing, and he died on the 2d November.

Dissection. No sound could be elicited from any part of the chest—considerable effusion under the arachnoid in the head—the right lung strongly adherent to the ribs of that side, and its lower half converted into a putrid and disorganized mass—the left lung adherent on all sides, but not affected in its parenchymatous structure—the heart greatly enlarged.

Such examples as the above are fortunately not very frequently seen on this side of the channel, where more active treatment is pursued than on the continent; but they afford useful beacons to warn us of the danger we run in neglecting thoracic inflammation.

Our author next brings forward a number of cases where the pulmonic inflammation was complicated with a similar state of the mucous membrane of the intestines—an occurrence by no means rare.

Section IV. *Hydrothorax.* This disease our author considers as the inevitable consequence of inflammation of the pleura (suite inevitable de l'etat inflammatoire des plevres.) It is generally complicated with, or rather caused by obstinate or neglected catarrhal affections—repeated attacks of convulsive asthma—organic diseases of the heart or lungs. The prognosis may generally be unfavourable—and the event sudden. The following case is interesting, though we think it would be more properly entitled traumatic than idiopathic hydrothorax.

Case 14. Jean Jack Lefre, 33 years of age, by trade a blacksmith, received an injury on the right side of the chest,

in the month of April, 1818, by a blow from a bar of iron. The pain was great, and there was ecchymosis of the integuments. From this period he felt constant pain in that side, augmented by exercise, with cough in the evenings, sense of weight in the chest, tightness in breathing, general malaise; but no loss of appetite or sleep. Two months after the accident, he vomited up about a pint of blood, followed by considerable abatement of the symptoms above mentioned. He therefore took to his work, but in a day or two the dyspnœa became more troublesome than ever, and flexion of the trunk almost impossible, with great sense of weight and fulness in the thorax. All these symptoms went on gradually increasing for nineteen months, till the 1st of October, 1819. On this day, the patient felt a remarkable sensation, while making some exertion, attended with a strange noise of something bursting, and with instant sense of suffocation, anxiety, and cold sweats. From this time he could feel a gurgling noise in his chest at each motion of the body, and the symptoms above described continued with great violence. He was received into the Hotel Dieu, on the 18th November, 1819, twenty-one months after the commencement of the malady; at which time the symptoms were so unequivocal as to leave no doubt of the nature of the case.—No sound could be elicited by percussion from that side of the chest, nor was there any evidence of the respiratory function there. It was just the reverse on the left side of the thorax.

On the 27th December, the operation for empyema was performed by M. Dupuytren, at the request of M. Recamier. A hydrocele trochar was plunged between the fifth and sixth ribs (counting from below) at equal distances from the sternum and spine. Three pints of fluid escaped, at first of a clear serous nature, but towards the end of a turbid and greenish cast. Next day the patient took some hot wine, which brought on a fever of some days duration. On the 29th, the diseased side was more sonorous on percussion than the other. On the 3d of January 1820, the right side of the chest seemed much bulged out—a gurgling noise distinctly heard when the trunk was moved—that side yet more sonorous than the left—no respiration heard there—and but faintly in the other side—the beating of the heart very quick and rather strong—palpitation on any movement of the body. On the 6th of January, the breathing was become very difficult—no sleep—orthopnœa—great debility—extreme anxiety. On the 10th the patient died suffocated.

Dissection. On opening the right cavity of the chest, much fetid gas escaped, followed by a quantity of whitish pus, to the amount of three or four pints. The whole internal surface of the

pleura was covered by an albuminous exudation. The lung of that side was shrivelled up into a very small space, but still a little crepitous—no communication between the cavity of the pleura and the bronchia—the mucous membrane of the aerial passages presented traces of inflammation. Nothing remarkable in the other side of the chest. All the other organs sound.

Our author thinks there is reason to believe that the fluid was originally contained in a cyst, which cyst burst at the time the patient felt the unusual noise and sense of suffocation detailed above.

In the following case, which is sufficiently interesting, we attribute the sudden death to disease of the heart, and effusion into the pericardium, rather than to the hydrothorax of the pleura.

Case 15. A young woman, 26 years of age, who had been a recluse in the Saint Lazar for several years, was admitted into the Infirmary on the 18th of May, complaining of pains in her limbs, fever, and severe cough. On the 19th an emetic was administered, and, with the exception of the cough, the patient felt herself better. This symptom continued with violence, but without any oppression of the chest, or pain in the side. There was some evening fever. This state continued till the 24th, when flushing of the face, dryness of the tongue and skin, bad taste in the mouth, nausea, &c. returned, and another emetic was administered with the same results as on the former occasion, excepting the cough, which still continued. On the 26th the patient could lie on either side, but with preference for the right—the evening fever returns—the stools and urine scanty. 29th. Pains in the limbs —and at intervals a pulsation in the epigastric region—some blood in the expectoration—bad sound, on percussion, from the inferior part of the sternum. Between the 30th of May and 1st of June there were bilious vomitings, with tendency to faintings—the epigastrium very tender to the touch. On the 3d of June, in the morning, the patient appeared strangely affected, and in a manner which she could not describe. She wept: and yet she seemed better in all respects than for a considerable time previously. The complexion was natural —the features exhibited no traits of suffering—the pulse was calm, full, and regular—the skin cool and moist—the tongue clean—the breathing easy —no cough, nor pain in the chest. In the evening she got up, and after walking about a little and talking jocosely with some of her companions, she fell down dead, while returning to her bed.

Dissection. The right side of the thorax presented an effusion, circumscribed and encysted, as it were, by a membrane formed of

the pulmonary and costal pleura, and containing about a pint and a half of yellowish transparent serum. The parietes of this cyst were as red as blood, and highly inflamed. The pleura covering the diaphragm throughout its whole extent, was very much thickened—in some places to that of four lines. The lung of this side was flattened and hard—in some few places a little crepitous. The left lung was sound, and no effusion on that side. The heart was greatly enlarged, and the arch of the aorta extremely dilated. The paricardium contained some ounces of water. The small intestines were slightly phlogosed—the mucous membrane of the stomach was red, and its vessels strongly injected.

It is observed by M. Tacheron, and with reason, that the serous collection here was the result of chronic inflammation of the pleura; but the effusion was so slow that the neighbouring lung accustomed itself to the gradual encroachment; hence the obscurity of the symptoms. We conceive that the sudden death was owing to the effusion, though trifling, into the cavity of the pericardium. It is astonishing what a small effusion into that cavity will do, when there is any organic disease of the heart, or water in any of the other thoracic cavities embarrassing the function of the lungs.

The following is a well-marked case of tubercular disease, pervading many parts of the body at the same time.

Case 16. Antoinette Rose, 16 years of age, had enjoyed good health till the age of 13, when she was seized, in the month of May, 1806, with a gastro-intestinal phlegmasia of an intermittent character, accompanied by some cough, which continued till her entrance into the hospital. She had some difficulty of breathing—pain and hardness in the left hypochondrium. These symptoms were generally relieved every day when the fever came on, and returned in the apyrectic intervals. She sometimes coughed up a little blood with the expectoration, and twice had considerable nasal hæmorrhage, followed by much alleviation of the symptoms. On the 5th of December, 1806, she entered the hospital, presenting the following symptoms:—face pale and emaciated—constant thirst—cough—pain to the left of the epigastrium—abdomen tender on pressure, and a tumour to be felt in the left hypochondrium—liver somewhat enlarged and indurated—diarrhœa for some days past—pulse feeble and quick. This state continued from the 5th till the 31st December;—the patient often complaining of headach—great heat in the palms of the hands—puriform expectoration—heat of skin—hard pulse. On the 8th of December twelve leeches to the pudendum—diluents, &c. From the 1st till the 15th of January the cough and diarrhœa somewhat mitigated. From the 15th

till the 31st an eruption on the left arm and hand—considerable fever. From the 1st till the 18th of February the abdominal pains more distressing, and the pyrexial symptoms increased—diarrhœa constant—legs œdematous. From the 18th till the 25th her state was very alarming—the breathing very short—voice plaintive—pulse small—skin arid and hot. Death put a period to her sufferings on the 28th of the same month.

Dissection. The thorax, when stricken, resounded but badly on the left side—fluctuation in the abdomen. The right lung was sound and crepitous—a serous effusion on the left side, with here and there adhesions between the costal and pulmonary pleura—the pleura itself studded with granulations and small tubercles—the lung itself but little crepitous, yet with no particular disorganization—the heart remarkably small—effusion in the abdomen—the whole peritoneal covering of the intestines studded with black granulations and various sized tubercles, the smallest of which were the magnitude of a pea—the mesenteric glands enlarged—all the circumvolutions of the intestines adherent to each other—liver greatly enlarged, tuberculated, and very hard—the gall-bladder contained but a small quantity of limpid fluid—the fallopian tubes enlarged and tuberculated.

We have not space to bring forward any more dissections under the head of hydrothorax. We may be pretty well satisfied, that these effusions into the thoracic cavities are the consequences of acute or chronic inflammation, or of some obstruction to the free circulation of the blood. Although these effusions are serious evils in themselves, they are far less so than the causes which produce them—and it is to the removal of these that we are to look for any thing like a permanent cure. Unfortunately, it too often happens that we have little power over any thing but this *effect* of the disease, the effusion. We can frequently evacuate this, by acting on the absorbent and secerning vessels, and thus give a temporary relief to the sufferings of the patient, when the organic disease, that is the cause of all, is beyond our reach.

A series of important pathological specimens still remain for examination; but as they belong to distinct classes, they will form one or more moderately sized articles in our succeeding numbers, without producing any inconvenience in their separation from the present paper. They are principally on diseases of the pericardium, heart, peritoneum, brain, and nervous system. They will appear in due time. Meanwhile, we invite our junior brethren to cultivate pathological anatomy with increased energy and ardour, as the only safe basis of practical medicine.

II.

Transactions of the Surgeon Apothecaries. Vol. I.

[Continued from No. 15, page 550.]

ARTICLE III. *The History of a Case of Spontaneous Rupture of the Uterus in the Seventh Month of Pregnancy.* By CHARLES SHILLITO, M.R.C.S. and of the Society of Apothecaries.

MR. SHILLITO is a gentleman of extensive practice, great zeal in his profession, and an accurate observer. We are glad, therefore, to find him an early contributor to these transactions; and we hope he will give them a steady support in future.

Rupture of the uterus, during labour, is one of the most unfortunate and melancholy occurrences that can be met with in practice. The fatality which almost invariably attends instances of this nature, evinces the insufficiency of our art; and whilst the feelings of the medical attendant are wounded in witnessing agony he cannot mitigate, his character too often suffers from the malignancy of prejudice, or the falsehood of ignorance. Happily, however, such accidents are rare; for nature has most admirably guarded against them, by causing the *tenacity* of the womb to increase with its distention, and its *strength* with the burden it has to bear.

The subject of this communication was housekeeper in an opulent family, in her 43d year; corpulent, but active:—had borne several children; and had a capacious and well-formed pelvis.—One evening, in the 7th month of her 12th pregnancy, after more than usual exertion, symptoms of labour appeared:—some trifling gushes of blood escaped, and the motions of the child were strongly felt. The os uteri was found rigid, and admitting only the point of the finger.

No regular labour pains occurred until the following morning, when *two* very severe ones were experienced. The os uteri a little more dilated, but still hard. The patient complained of a heavy weight and coldness in the abdomen, and general uneasiness. The third day was ushered in by a rigour, followed by fever, intermitting pulse, increased restlessness, acute pain on deeply breathing, and tenderness and tumefaction of the abdomen, which increased with the day, attended by delirium, furred tongue, and anxiety of countenance. Dr. Merriman, who was now consulted, passed two fingers through the os uteri, and discovered a rent in the pos-

terior part of the cervix. On the 4th day, Dr. M. got three fingers into the uterus—it was very much contracted, and contained only coagulated blood. A discharge, like lochia, took place on the 5th day, and spasms about the abdomen, bilious motions, copious vomiting of dark viscid secretion, rapid and intermitting pulse. These symptoms became more urgent, but were met by bold and judicious treatment; and the woman appeared to rally a little. A profuse discharge of dark, offensive, grumous matter continued to flow from the vagina until the 12th day, when a large quantity of water, with some pus, and the membranous part of the placenta with the funis, were discharged, after an attack of abdominal spasm. The child could now be plainly felt, through the muscles of the belly, resting on the brim of the pelvis from ilium to ilium. The patient was nearly in a state of syncope; her respiration was convulsive, and her pulse small and fluttering. "I got down," says Mr. Shillito, "some volatile alkali diluted; also, by teaspoonfuls, strong brandy and water; and on her recovering a little, I took the opportunity of introducing my hand, with the navel-string for a guide. I found the os uteri apparently gone, and one common opening to the abdomen, and I felt a hand of the child low in the pelvis. After again supporting my patient by more stimuli, I a second time introduced my hand. I got hold of the feet, and, after half an hour's perseverance, being a little inconvenienced by the intestines pressing greatly upon my wrist, every movement of my hand causing eructations of wind, I extracted a perfect male fœtus in a discoloured and very putrid state, of the usual size of seven months growth. For several days after delivery, symptoms were as favourable as they could possibly be under such circumstances;—appetite, sleep, and strength appeared returning; but a change for the worse took place, and the poor woman sunk on the 25th day after the rupture of the uterus, and on the 12th after the delivery of the fœtus."

A minute description of the post mortem appearances is given by Mr. Shaw, with his usual accuracy. We must confine ourselves to that part of it most peculiarly connected with the case before us. The fœtus was found in a cavity beneath the peritonæum. "When the cavity was fully exposed, it appeared to have been of a size corresponding to the bulk of a seven months fœtus. Its boundary on the upper part was formed by the adhesion of the left side of the arch of the colon to the abdominal muscles, extending in a line from the umbilicus to the 11th rib. The inferior boundary was formed by the natural reflection of the peritoneum from the fundus of the bladder, and which, on the left side,

was continued up to the 11th rib, in connexion with the abdominal muscles; while on the right side, the sac was closed by condensed peritoneum running from the umbilicus to the fundus of the bladder, so that the sac was confined principally to the left side of the abdomen. The posterior boundary was formed by the agglutination of the peritoneal surface of all the small intestines by masses of lymph."

"The vagina was not ruptured, but near the os tincæ it was in rather a sloughy state; only one half of the os tincæ was found, the other part having apparently sloughed off. The uterus was twice the size it is generally, in the unimpregnated state. The fundus and greater part of the body covered with the thickened and inflamed peritoneum; in other respects they appeared to be quite natural: but the left side of the os tincæ, of the cervix, and of part of the body of the uterus, appeared to have sloughed off, so that there was a **direct communication between the cavity of the uterus and the sac in the abdomen. When the hand was passed into the vagina, if it were carried directly up, it entered into the sac in which the fœtus had lain, but by being directed laterally it passed into the uterus."**

Mr. Shillito confesses he had no idea that the uterus was ruptured during the first forty hours of his patient's illness; but had such a circumstance been ascertained beyond a doubt, the rigid and contracted state of the os uteri precluded the possibility of relief by instrumental or manual interference.

The question, "Is it proper to deliver by artificial means in cases of ruptured uterus, or leave them to the efforts of nature?" has divided the opinions of writers on midwifery. Denman and Burns think every thing should be left to nature; whilst Dewees asserts such a procedure to be highly improper, and to diminish very much the chances of the patient's recovery. It appears to us, that both these opinions may be correct, each being the right one to follow under certain circumstances: and, that in adopting the one or the other, the medical man must, as in many other doubtful points of practice, be guided by his own judgment and experience, and the peculiarities of the individual case he has to do with.

Three plates are subjoined to this paper, illustrative of the morbid appearances discovered on dissection.

ARTICLE IV. *Cases in which certain kinds of Food, commonly thought to be indigestible, have seemed to act as Violent Narcotic Poisons.* By CHARLES THOMAS HADEN, of Sloane-street, Surgeon to the Chelsea and Brompton Dispensaries.

MR. HADEN states that the objects of this paper are;—"to show that food literally becomes poison under certain circumstances," and, that the action of food, and that of poison is the same, "differing only in degree."

That the effects of every thing taken into the stomach are modified or changed by the state of that organ and the general system, and that thus the same article of diet may at one time be grateful and salutary, and at another disgusting and injurious—that the same drug may be a bane or an antidote, are facts generally known and acknowledged; but, that the action of poison, which in its nature is destructive to the structure or functions of the body, and that of food, which is destined for its support and renovation, are the same, is a position the truth of which we think is very doubtful. We shall, however, leave this to the determination of our readers, referring them to the communication itself for a detail of the cases brought forward. They are examples where pulp of orange, fresh and pickled pork, beef's heart, mutton chops, &c. were apparently productive of the most alarming symptoms. We believe instances of the kind occur in the experience of most practitioners; and we are inclined, in some of the cases, to attribute a greater share of the effects produced to the *quantity* of what was taken, than our author appears to do.

Two cases of apoplexy are added:—in one, an old lady, repeatedly threatened with symptoms of the disease, experienced a fatal attack after mental agitation—the other, a young woman of 21, struck her head violently against a piece of wood, complained of headach for a day or two, and fell apoplectic on the fourth day after the accident, whilst standing at the wash tub. Appearances on dissection were, a slight congestion of scarlet blood, opposite the site of the blow;—all the ventricles filled with serum and blood—the cavity of the right nearly filled by a coagulum. A large clot had formed in the substance of the brain near the side of the third ventricle.

ARTICLE V. *Case of Injury to the Upper Jaw.* By JOHN POWELL, Esq. Keppel-street; Member of the Royal College of Surgeons.

A boy, eleven years of age, was thrown with great violence from a horse upon his head and face: he was stunned by the fall, and, on recovery, found the two front incisors of the upper jaw apparently knocked out, and a large wound in the under lip. In six weeks the wounded lip had healed, but several pieces of the upper jaw and palate came away at different periods, attended with fetid breath, and great obstruction to the passage of air through the nostrils. Ten years after the accident he became a patient of Mr. Powell's; his breath was at that time almost intolerable even to himself. Mr. P. found the obstruction in the nostrils to arise from the presence of the two incisor teeth, which had been driven by the force of the blow perpendicularly upwards into the right nostril. These were extracted with some difficulty, and the patient soon got well; and the two lateral incisors approximating, the general contour of the jaw was preserved without visible deformity.

ARTICLE VI. *On the Treatment of Painful Affections of the Nerves, arising from Local Injury.* By GEORGE R. RODD, Esq. Surgeon, Hampstead, M.R.C.S.

Neuralgic affections are among the most distressing and painful complaints to which the complicated structure of man is liable, and often resist every remedial measure that theory, ingenuity, or experience can suggest. Mercury, steel, arsenic, lead, bark, opium, conium, stramonium, and belladonna, are but a few of the substances administered, here and there with success, but in very numerous instances, without any.

Mr. Rodd has been fortunate enough to relieve several cases by the external application of strong watery solution of belladonna to the skin, over the affected nerve. In one instance the disease, which appeared to originate from a blow on the part, was in the sciatic nerve extending from the hip to the foot—almost immediate relief was afforded by rubbing the course of the pain with two drams of the extract of belladonna dissolved in an ounce of water. The pain never recurred with much violence, and the woman got quite well by small doses, combined with extract of bark, and a blister at the back part of the thigh. Another case was that of a female, who suffered excruciating pain in the course of the sciatic nerve after parturition. It resisted every thing for six weeks, until the belladonna was applied.

Mr. Rodd thinks, that the weak and delicate who have suffered from hæmorrhage or other debilitating discharges, are most liable to painful affections of the nerves; and, that during a paroxysm, the function of the nerve is interrupted, which accounts for a thrilling sensation characteristic of this complaint. Pressure on a nerve will sometimes give rise to a derangement of its functions. Mr. R. suffered from this himself, from wearing a tight ring—of course, where its seat is beyond reach, no assistance can be derived from local applications.

ART. VII. *Case of Aneurism of the Aorta.* By JOHN HUNTER, Esq. Jun. Member of the College of Surgeons.

A sawyer, 48 years of age, complained of violent gnawing pains about the back, which were treated as rheumatic, but without even temporary benefit, excepting from bleeding and opium. They were then supposed to be hepatic, but the medicines administered had the same result. After a time the pains became more defined, fixing about the left shoulder. The hand applied to this and adjacent parts detected no pulsation or tumour;—there was no irregularity of pulse; no unusual beating in the chest. The poor man got no sleep; and was unable to take a deep inspiration without great increase of the pain. For a short time before his death his voice became hoarse, with a slight cough, with a numbness of the lower extremities, anorexia, and emaciation. He died of hæmoptysis.

Dissection. Eight or ten ounces of serum in the cavity of the pleura. "A quantity of florid blood extravasated in the lower edge of the right lung, and the pleura covering it highly vascular, (this was the immediate cause of death.)" The lungs, with the exception of this, healthy. Heart pale and fat—left ventricle thin—three ounces of serum in the pericardium. "On removing the lungs an immense aneurismal tumour was discovered, proceeding from a circular orifice, above an inch in diameter, at the back of the aorta, about an inch and a half previous to the transmission of the arteria innominata; the posterior surface of the sac was formed by the six superior dorsal vertebræ, and portions of the corresponding ribs on either side; these bones were all in a state of ulceration." The sac had not burst;—the coagulum removed from it weighed two pounds ten ounces. The aorta, near the aneurism, had several large patches of ossification.

ARTICLE VIII. *Abstract of Communications from the Country on Medical and Surgical Attendance on the Parochial Poor.* By ROBERT MASTER KERRISON, M. D.

This, like most abstracts, admits not of analysis:—its na-

ture, and our limits oblige us, therefore, to refer to the communication itself.

ARTICLE IX. *A Series of Cases of bad Practice in Midwifery and Surgery, illustrative of the Evils which result from uneducated Persons being allowed to practise those Branches of the Medical Profession.* Collected by DAVID EVANS, Esq. Surgeon, of Belper, in Derbyshire.

It is certainly a national opprobrium, that ignorance should be suffered to sport with and destroy the lives of so many of our fellow-creatures with impunity. Laws are passed to secure a man's property, and to bring to justice the thief who steals to the value of a shilling, whilst the knavish pretender to medicine is permitted not only to pick pockets to any extent, but to deprive a person of limb, of health, of life—without the fear of reprimand or punishment!

Almost every day's experience furnishes such instances as Mr. Evans relates: very many have fallen within the sphere of our observation, and doubtless within that of most of our readers. We sincerely hope the Society of Apothecaries will exercise that power which has been granted them by Parliament, with energy, promptness, and decision, and root out an evil which is spreading to a most alarming extent.

ARTICLE X. *A Case of Poisoning by Opium, in which the Stomach was successfully emptied by mechanical Means; also, a successful Case of Operation for an extraordinary Tumour found in the Vagina.* By DAVID EVANS, Esq. Surgeon, of Belper, Derbyshire.

A woman, 55 years of age, confined to bed from a paralytic state of the lower extremities, was in the habit of taking thirty or forty drops of tincture of opium in gin to alleviate pain. Being one day left with an ounce and a half of the former, and a pint of the latter, she swallowed the whole. She was found soon after with a ghastly and mottled countenance, livid lips, and dull and half-closed eyes—her breathing was slow, pulse quick, irregular, and feeble, and all the muscles relaxed. Deglutition apparently destroyed. Through a flexible tube passed down the œsophagus, half a dram of ipecacuanha in a little water, and soon after three pints of warm water, were injected. From the emaciation of the patient the distention of the stomach by this quantity of fluid was apparent; pressure was made over this organ, and its contents, smelling strongly of gin and opium, ran out through the tube. This operation was repeated until the peculiar odour disappeared. The patient now rallied a little, an eme-

tic took effect, and she recovered from the influence of the opium: but died soon after of inflammation of the chest.

A Case of Tumour in the Vagina, &c.

A soldier's wife, in the third month of her pregnancy, slipt and fell to the ground. She felt at the time "as if she had displaced something within her." A train of symptoms, indicating abdominal inflammation, followed the accident; these were removed by bleeding, &c. but a state of feverish restlessness, and occasional uterine pains, led to an examination per vaginam. "I was astonished," says Mr. Evans, "to find a large tumour, the size of a child's head, hard and incompressible, and feeling like a bony and cartilaginous substance. It was connected with the upper and back part of the vagina," and so completely filled that passage that no part of the uterus could be felt. The tumour caused a suppression* of urine, was highly inflamed, and tender to the touch; and the belly was tumid and painful—a trochar was thrust into the tumour, and ℥ij. of a jelly-like fluid, tinged with blood, passed off. This gave considerable relief for 24 hours, when the painful symptoms returned in an alarming degree, with delirium, and appearances of approaching dissolution. An opening large enough to admit the finger, was made into the tumour with a scalpel; its walls were as hard as cartilage, and about half an inch in thickness. More of the jelly-like substance came slowly away. The finger passed far into the wound, detected several tumours, of various sizes, growing from the inner surface of the sac; some of which, somewhat like spermaceti, came away in a few days. The walls of the sac did not collapse at the time of the operation, but all the bad symptoms vanished, and the woman went her full time, when, after a "laborious labour," she was delivered of a dead child. At this time no vestige of the tumour remained.

ART. XI. *On Venous Congestion.* By THOMAS SANDWITH, Surgeon, Beverley.

Mr. Sandwith remarks that the diagnosis and treatment of the diseases of the mucous, serous, and cutaneous surfaces, constituting the greater part of the disorders of the human body, are, in general, well understood; whilst those situated in the substance of the brain, lungs, and liver, are often obscure. This arises from the peculiarity of the vascular structure of these organs; they are supplied with large venous re-

* Retention.—*Rev.*

servoirs, in which, on a derangement in the just balance of the circulation, an undue accumulation of blood takes place, constituting congestion—a source of many important diseases.

1. *Congestion of the Brain.* The veins being passive organs, the motion of their blood depends upon the vis à tergo; congestion of the brain, therefore, is likely to happen when the arteries are atonic from debility or excitement. This assumes the characters of apoplexy, mania, delirium tremens, epilepsy, and hysteria, according to the predisposition of the individual.

Apoplexy, from congestion of the veins and sinuses, is not uncommon in young plethoric women who menstruate irregularly. *Acute* forms of *mania* depend on excitement of the arteries of the brain—the *chronic* species are often maintained by congestion of the veins—many unfortunate individuals oscillating between the two. The arteries of drunkards become atonic—hence venous congestion, producing *delirium tremens*. Syncope is the most complete form of venous congestion; and fainting from loss of blood is often attended with convulsions. It is not improbable, therefore, that epilepsy sometimes depends on congestion of the brain, as may hysteria, and many other diseases of the nervous system, as chorea, tetanus, and hydrophobia. Our author's experience does not enable him to decide this question; but, he thinks, the resemblance of hydrophobia to hysteria, as pointed out by Dr. Powel,* worthy of remark.

2. *Congestion in the Chest.* Mr. Sandwith considers angina pectoris as a striking example of venous congestion. A disease analogous to this affection occurs when the arterial system is weakened by profuse hæmorrhages—the right chamber of the heart and pulmonary veins suffering congestion in consequence. This often happens in those affections of the uterus, in which large sanguineous discharges alternate with leucorrhœa. Our author has been very successful in the treatment of these cases by repeated moderate bleedings, as suggested to him by Dr. Alderson, of Hull. There is a modification of this disease of the chest, in which the right auricle, pulmonary artery, and venous system of the liver, are overcharged. It is attended with feeble pulse; cold, pale, relaxed skin; a painful struggling about the heart, palpitations, shortness of breath, dyspepsia, and syncope. Cordials aggravate, but the lancet removes it. Hæmoptysis occurs from congestion of the pulmonary veins; most frequently in young females with suspended menses.

* Med. and Phys. Journal, vol. xx. p. 201.

3. *Congestion of the Liver.* This is the source of many serious diseases in remote parts. The disorders named bilious, dyspeptic, &c. arise from this. In its simplest form it is denoted by paleness of face, livor round the eyes, hepatic torpor, indigestion, and irregular bowels. An attack of melæna not unfrequently removes more advanced stages, or it is changed into inflammation. Under this cause may be arranged as effects hæmorrhoids, epistaxis, hæmatemesis, menorrhagia, purpura hæmorrhagica, bronchitis, phthisis, gout, and hypochondriasis.

The treatment of the different forms of congestion may be summed up in a few words. The object is to equalize the circulation. The oppressed veins must be relieved of part of their contents, and the warm bath, with frictions, counter-irritation, purgatives, occasional mercurials, and stomachic medicines are to be directed.

This paper indicates much talent for observation and reflection, and is certainly very creditable to Mr. Sandwith.

ARTICLE XII. *Narrative of an unusual Case of Utero-Gestation, in which the premature Expulsion of one Fœtus preceded, by two Months, the Birth of a Twin Fœtus at the full term.* By W. NEWNHAM, Esq. Surgeon, Farnham, Surry.

In this instance, a fœtus of seven months, with its placenta, were expelled from the uterus, stillborn, and another which remained behind, came away fifty-nine days after, being its full time, alive and well.

Mr. Newnham does not consider this as a case of superfœtation, but that two ova were impregnated at nearly the same time. It is an admirable provision of Nature, in cases of twins, that a dead fœtus should be an irritant to the uterus, cause it to take on the expulsive action for its exclusion, and then remain at rest to perfect the living one. The practical inference drawn from this narration is, that in premature labours where one fœtus is expelled we should not hasten the delivery of the other by any means, but tranquillize, and leave all to nature.

ARTICLE XIII. *Cases illustrative of the Efficacy of the Colchicum Autumnale.* By G. WALLIS, M. D. and late of Emanuel College, Cambridge.

Every medicine must be tested by extensive experience and careful observation before its value can be justly estimated: we find, however, as Dr. Wallis observes, that when a remedy becomes *fashionable*, it is administered by the gene-

rality of practitioners "without reason and judgment," in all cases of disease, however opposite in their symptoms, and not being attended with universal success, it is condemned and discarded. This has been the case with many a valuable article of the materia medica, whose qualities deserved a better fate.

Dr. Wallis considers the powers of the colchicum, to be to diminish the excitability of the brain and nerves, and to lower the action of the heart and arteries. The powder is the form he has used it in. In a case of what is generally called rheumatic gout, seven grains combined with Dover's powder, administered every four hours, acted like a charm. Two cases of "hysteritis," from suppressed menses, which resisted the most active measures, readily yielded to this remedy. In pneumonia, pleuritis, phthisis, incipient hydrocephalus, and diabetes, it has been of infinite service. In this latter disease, its control over the urinary secretion was "extraordinary and intermediate," reducing it from three gallons, to its natural quantity, in two days.

Article XIV. *On the Treatment of a Peculiar Lameness produced by a Failure of the Arch of the Foot.* By Thomas Haden, Esq. Derby.

This lameness results from a defect in the arch, formed by the tarsal bones. From a weakness of the ligaments which bind these together, the arch gives way, the ankle sinks, the instep becomes flattened, the point of the heel raised, and the fore-part of the os calcis, where it joins the astragalus, is depressed:—in some instances so much as to touch the ground. In consequence of this, the foot loses its elasticity, the toes are turned outward in progression, and the gait becomes laboured and awkward.

In treating this affection, "nothing answered so well as broad strips of adhesive plaster rolled over each other, so as to form a compress of the proper width and thickness, and bound on the foot by means of other strips of plaster; the whole being fastened on and kept tight by a roller, or what is better, a laced stocking, or ankle-piece." "This will give no pain, if it be made flat enough at first: indeed, in the course of a day or two, it becomes a great comfort to the wearer. It should be changed once a week, and the compress then enlarged. This may be done by rolling the strip of plaster used to keep the compress in its place, on the old compress itself, and the increase of size thus given will generally be found the proper one for the time."

ARTICLE XV. *On the Treatment of Club Feet.* By THOMAS HADEN, Esq. Derby.

The treatment of this deformity has engaged the attention, and exercised the ingenuity of many. The knowledge of the surgeon has been aided by that of the mechanic, and yet how little success has attended their efforts! It is probable this may be accounted for by the various opinions which have existed respecting its cause. Mr. Haden attributes it in many instances to the pressure of the uterus in the last months of pregnancy. Ulcers of the foot, fractures of the leg, causing the patient to keep the part in an unnatural position, or injuries to the ankle joint, may produce this distortion.

The following is Mr. Haden's method of treatment. "For an infant, take a strip of plaster an inch broad, and nine inches long: place one end of it on the outside of the foot; carry the plaster over the middle of the instep, and down under the foot, so that it shall cover the end which lies on the outer edge of the boot, then twist the foot strongly, so as to turn the sole outwards instead of inwards, and secure it in that position, by carrying the plaster round the inner ankle to the outside of the foot. This plaster must be changed *every day*, and be farther kept in its place by means of a roller. Moreover, it is necessary at night to put both on the inside and outside of the leg and foot a strong splint of pasteboard, like a leg for drying stockings on, shaped at the bottom to the foot, and reaching up to the knee. These splints are to be removed every morning." Thus applied, sticking plaster will generally be sufficient for the removal of this deformity, as it answers every indication required, allows the limb to be moved in any direction, and is free from the weight and inconvenience of the more complicated apparatus. Some instances are mentioned of patients up to six years of age, who were cured in a few weeks.

ARTICLE XVI. *Brief Memoir on the Professional Character of William Richard Morel, late one of the Surgeons to the Westminster Hospital.* By his Colleague.

Who this Colleague is does not appear on the record. Be that as it may, we notice this brief memoir, out of its turn, in order to correct a *misrepresentation* which it contains. If it be a proper maxim, to speak nothing but good of the dead, it is, we imagine, equally proper to speak nothing but truth of the living. Whether this last has been adhered to in the memoir, we leave our readers to judge when they have pe-

rused the following note, and the comment which we shall make upon it.

"He (Mr. Morel) was on the staff twenty years all but a few months; had he been allowed to remain there the proper time, he would have retired upon full pay, which his active, arduous, and zealous services justly entitled him to. But he was *obliged* to retire prematurely upon half pay, having been informed that the hospital establishment was immediately to be broken up. Instead of which, the situation which he was thus induced to relinquish was given to another, and the hospital not broken up till after the time had expired which would have determined his rightful claims." 389.

The following are the *facts* of this hard and fictitious case.

Mr. Morel had served on full pay *only sixteen years*. Had he completed a service of twenty, he would not have been entitled to full pay; nor to any thing beyond the half pay at seven shillings a day, (which rate he received) unless the cause of reduction were ill health, when he might have claimed ten shillings a day.

The reduced establishment of medical officers required, that all those who were retained on full pay should be fit for any service; but Mr. Morel was much afflicted, and was in fact scarcely equal to his share of the duties that then devolved on the limited number of officers retained at the York Hospital.

In consideration of his broken down constitution, the heads of his department made strenuous efforts with the Secretary at War, and Board of Treasury, to obtain for him a pension of 100*l.* a year; they had to regret want of success in their application; but Mr. Morel was very sensible of and expressed his gratitude for their exertions. On his retirement, he obtained the brevet rank of Deputy Inspector of Hospitals, as an honourable mark of approbation of his conduct as a medical officer.

So much for the *twenty years* service and *forced* retirement of Mr. Morel—and harsh conduct of the heads of the Army Medical department!

There are several important memoirs remaining to be analyzed in this volume, but these we must defer till our next number.

III.

Annual Reports of the Directors of the Glasgow Asylum for Lunatics, for the years 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, *and* 1822.

Glasgow has long been distinguished among the great cities of the world for the extent and wise discriminations of her munificence. Her institutions,* established for the purposes of mitigating the evils of misfortune and disease, are numerous, and all of them excellent; but, above the rest, her asylum for the reception of lunatics constitutes a prominent object of attention to those who venerate that most generous of virtues—the active charity which rejoices in labouring to alleviate misery determined by the alienations of mind.

Knowing the constitution of this Asylum to be an approved model which the patrons of other houses for the insane have found advantage in imitating, we propose submitting to our readers whatever in the Reports of its Directors we shall deem conducive to the illustration of its particular economy. Our present article, however, is not intended to be exclusively a contribution to the pathological philosophy of insanity; it is rather to be regarded as a sketch in medical topography, which may be useful in enabling subsequent inquirers to appreciate the comparative results of treatment on the manifestations of intellectual disease.

Our plan, therefore, will lead us—1st, to exhibit, in a tabular form, the annual number of persons treated in this Asylum; 2d, to give a synoptical classification of the cases into male and female, old and recent, together with a view of the different gradations of the malady; and 3d, to select such portions of the Reports, *ordinations*, as may appear subservient to the design in which we are engaged.

I. The Asylum for Lunatics at Glasgow comprehends 136 apartments, destined for the accommodation of 120 patients, who are distributed into classes according to their sex and sphere of life, and according to the degree of their insanity. A similar distipction is observed in the grounds for exercise and airing, to which each class is separately admitted.

* For a full account of these the reader is referred to the Topographical Picture of Glasgow, with a Sketch of a Tour to the Highlands, and Falls of Clyde, 12mo. with plates. Glasgow, Printed for Richard Griffin and Co. 1820

Paupers from Glasgow, or from such towns and parishes as have contributed 50*l.* to the Institution for every 1500 of their inhabitants, may be placed in the Asylum at the weekly rate of 8s. and all others at that of 10s. 6d. for each individual. Persons in the middle and higher ranks of life are received as boarders, on terms varying from 15s. to 63s. per week, for which they obtain suitable lodging and attendance.

After having surmounted many difficulties, the Directors of this Asylum, towards the conclusion of 1814, had so far completed their manifold operations as to be enabled to declare the house ready for admission of patients. At their request, therefore, and introductively to its being opened, the magistrates of Glasgow, on December 1st of that year, inspected it; and, after minute examination, publicly announced their entire satisfaction with every part of the establishment. On the 12th, twenty-three men and eighteen women were transferred to it from the cells in the town's hospital. Four of the men, however, appearing to be idiots, were remitted. One female and two males were subsequently received; and thus, at the end of the year, the house contained forty lunatics.

Nine annual reports of their transactions have been published by the directors, with the laudable object of submitting the progressive state of the Asylum to general observation. In the subjoined table, originally constructed by Mr. Drury, the superintendent of the Institution, and inserted in the Eighth Report, is represented the yearly summary of persons admitted into the Asylum, together with a view of their ultimate disposal.

Admitted.

		Males.	*Females.*	*Total.*
Admitted.....	in 1814.....	21	19	40
	1815.....	39	37	76
	1816.....	52	33	85
	1817.....	44	40	84
	1818.....	50	40	90
	1819.....	43	34	77
	1820.....	51	32	83
	1821.....	56	37	93
	1822.....	50	30	80
		406	302	708
Re-admitted from Relapse.....	in 1816.....	4	2	6
	1817.....	1	1	2
	1819.....	2	2	4
	1820.....	3	1	4
	1821.....	0	1	1
	1822.....	1	0	1
		11	7	18
Total of Admissions.....		417	309	726

Dismissed.

		Males.	*Females.*	*Total.*
Dismissed Cured.....in	1815.....	16	16	32
	1816.....	24	16	40
	1817.....	26	17	43
	1818.....	15	21	36
	1819.....	21	18	39
	1820.....	31	13	44
	1821.....	21	14	35
	1822.....	26	7	33
		180	122	302
Dismissed Relieved.....in	1815.....	2	6	8
	1816.....	10	11	21
	1817.....	13	14	27
	1818.....	14	15	29
	1819.....	6	6	12
	1820.....	7	13	20
	1821.....	15	12	27
	1822.....	12	13	25
		79	96	169
Dismissed by Desire.....in	1816.....	1	1	2
	1817.....	4	1	5
	1818.....	8	7	15
	1819.....	7	6	13
	1820.....	5	3	8
	1821.....	5	6	11
	1822.....	13	12	25
		43	36	79
Dismissed Unfit.....in	1815.....	2	0	2
	1816.....	1	0	1
	1818.....	2	1	3
	1819.....	3	0	3
	1820.....	1	0	1
	1821.....	1	0	1
	1822.....	0	0	0
		10	1	11
Died.....in	1815.....	1	0	1
	1816.....	3	2	5
	1817.....	2	1	3
	1818.....	5	3	8
	1819.....	6	4	10
	1820.....	5	3	8
	1821.....	9	2	11
	1822.....	11	2	13
		42	17	59
Total of Dismissions, and of Deaths.....		354	266	620
Remaining....31st December, 1822.....		63	43	106
		417	309	726

II. Introductively to their tabular classification of patients, which commences in the Third Report, the Directors explain its objects and use in the following terms:—

"In order to begin a series of documents, which, if carefully continued, may tend to establish some conclusions at present doubtful, and to correct others erroneous, a list extracted from the Records by the superintendent, with great care and labour, is subjoined.

The terms used are more conformable to the language of our law than to the specific distinction of nosology. The imbecile, the fatuous, and idiots, graduate into each other, differing chiefly in degree. The first are weak in body as well as mind; the second, though sometimes robust, are more stupid, and the third are more stupid still. By *old* cases, are meant those that have continued beyond one year; the average in the list being from five to eight years: *recent* cases, are those under one year's duration."

Each of the last seven Reports contains four tabular sketches, entitled, MALE PATIENTS, Old Cases; MALE PATIENTS, Recent Cases; FEMALE PATIENTS, Old Cases; FEMALE PATIENTS, Recent Cases; exhibiting a complete list of persons admitted into the Asylum, from the period of its opening on December 12th, 1814, to June 1st, 1822; and, at the same time, showing the changes that have taken place in each of those remaining, together with the state of them, on leaving the house, who were dismissed, within that time. We have taken the labour of concentrating the general results of these 28 tables into the two following; which, we trust, to many of our readers, will not be devoid of interest.

No. 1.—MALE PATIENTS.

Classification of the Cases when admitted.	OLD CASES.								RECENT CASES.							
	How Dismissed.					State of those remaining.			How Dismissed.					State of those remaining.		
	Cured.	Relieved.	By desire.	Unfit.	Died.	Improved.	Stationary	Total of the several Classifications.	Cured.	Relieved.	By desire.	Unfit.	Died.	Improved.	Stationary.	Total of the several Classifications.
Furious.....	11	4	2	0	3	12	16	48	83	25	6	0	11	14	8	147
Melancholy....	6	4	0	0	1	5	3	19	24	11	2	0	2	8	5	52
Furious and Melancholy.....	0	2	1	0	1	0	6	10	9	2	3	0	0	0	0	14
Imbecile.....	1	0	0	0	1	3	3	8	7	1	3	2	1	1	1	16
Fatuous.....	4	8	6	0	1	10	10	39	5	6	4	0	3	3	2	23
Idiots.....	9	2	3	7	3	2	7	24	0	0	0	0	0	0	1	1
Total.....	32	20	12	7	10	32	45	148	128	45	18	2	17	26	17	253

No. 8.—FEMALE PATIENTS.

Classification of the Cases when admitted.	OLD CASES.								RECENT CASES.							
	How Dismissed.					State of those remaining.		Total of the several Classifications.	How Dismissed.					State of those remaining.		Total of the several Classifications.
	Cured.	Relieved.	By desire.	Unfit.	Died.	Improved.	Stationary.		Cured.	Relieved.	By desire.	Unfit.	Died.	Improved.	Stationary.	
Furious.....	7	8	1	0	1	11	14	42	47	14	6	1	1	9	5	83
Melancholy....	3	9	2	0	1	1	4	20	35	14	7	0	1	3	4	64
Furious and Melancholy.....	0	2	1	0	0	1	1	5	9	1	1	0	0	0	2	13
Imbecile.....	0	0	0	0	1	3	3	7	1	0	1	0	0	2	1	5
Fatuous.....	2	9	6	0	0	8	10	35	6	5	1	0	0	3	2	17
Idiots.....	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Total.....	12	28	10	0	3	24	33	110	98	34	16	1	2	17	14	182

NOTE.—In the general Table the total number of patients admitted into the Asylum is 726; in these two Tables of Classification the number is only 693, making a difference of 33, which is accounted for by the former Table being made to contain all the admissions for the whole of 1822, whereas the latter Tables do not include those admitted subsequent to the last day of June in that year.

From these lists it appears; 1st. That the males exceed the females in number, as 391 to 292, or nearly as four to three, a disproportion not usual in other Asylums; 2d. That, in both sexes, the disease becomes less and less curable in proportion to its duration; out of 258 old cases, 34 cures only were accomplished, whereas no less than 226 out of 435 recent ones were cured: hence appears the necessity of placing insane persons as early as possible under proper treatment; 3d. That the relative curability of male and female lunatics, is very uncertain, and not materially different: out of 391 males, there were 150 cures, and 110 out of 292 females; and 4th. That a continued series of such

lists will furnish data for comparing the success of different institutions with each other; but, for this purpose, say the Directors, the peculiarities of each must be fairly stated: for example, many of the largest Asylums in Britain, after the trial of one year, regularly dismiss all the patients not cured at that time; but here, with a few exceptions, the incurables continue accumulating from year to year, and persons are admitted under every form and complication of the disease, and even though apparently near death.

III. We are now to complete the last section of our Article, by placing before the readers of this Journal, a miscellaneous selection of observations taken from the nine Reports, according to the order in which they were originally submitted to general inspection.

A. 1814.—This Report is solely occupied with statements relating to the civil economy of the Asylum, and the admission of its first inmates, in the last month of the year.

B. 1815.—Here, we find some useful suggestions on the employment and office of keepers. The system of locking up patients for hours together, or of putting them in chains whenever the keepers cannot attend, has no place in this institution. Under such a system, an asylum puts on the appearance of a jail, instead of being a dwelling of comparative comfort. No person is confined here, but for a fault, or to prevent mischief, when any one shows signs of becoming outrageous. To find keepers properly qualified and to keep them so, has always been and always will be the most difficult part of the very difficult task allotted to those who manage an Asylum. Besides activity and strength, perfect sobriety and unremitting vigilance, a keeper should have a quick apprehension to discern the first approach of a paroxysm, great decision, and the greatest humanity. Such qualities, however, do not often meet in one character; and, when they do, their possessor can generally find a station equally lucrative, and more agreeably than the irksome attendance on the insane. Besides the weariness of confinement, his temper is put to the most severe trials. He is frequently exposed to personal assaults; every peculiarity about him is mimicked; his features and dress are caricatured on the walls; he is often assailed with the most cutting sarcasms and virulent reproaches, which seem prompted by malignity of heart more than want of understanding. Hence, he requires the greatest self-command to suppress resentment, and to refrain from punishing those who are so much in his power, and where he has so many chances of taking revenge without detection. The unhappy lunatic is generally reckoned undeserving of credit: having been found

guilty of innumerable exaggerations and much falsehood, he is not believed even when he speaks the truth; whence, under the very eye of men of much penetration, of strict honour, and great humanity, the most shocking abuses have, in some cases, continued for years without being discerned.

With reference to the permanency of the cure of lunatics, the subsequent remarks occur. It is certain, that all are liable to relapse, just as one who has had an ague this spring, is liable to relapse next autumn; but this is no good reason for saying that agues cannot be cured, or that it is idle to make the attempt. It is certain, also, that many are ready to relapse after stated intervals, unless particular care be taken to break the morbid habit, and to avoid the exciting causes of derangement; but it is no less certain that many, long subject to derangement, have continued free from it for many years, and that the number of complete permanent cures has, of late, increased greatly, under mild treatment, especially in houses where it is not the interest of any one to prolong the residence of the patient.

C. 1816.—In this report, we meet with some thoughts on a subject, in the discussion of which much ingenious speculation might be exercised. It is to be regretted, that the eloquent author of the paper (Dr. Cleghorn) has declined favouring us with his own views on this intricate subject. It is difficult to apprehend, we are told, and more difficult to explain, the principle on which the demolition of furniture should give ease to the mind of a madman; for, all the while, he knows a chair and a table to be what they are, and he knows also that they belong to one who supports him with much difficulty, and who, far from being able to replace what he destroys, can hardly keep up the present scanty stock. On some occasions, indeed, reasons quite absurd, but somewhat intelligible, are given for such an outrage. Some, becoming suddenly frantic, break to pieces every thing that can be broken in their apartments, because they think the articles might be much better made; others, because they deem it not only allowable, but commendable, to encourage trade in unpropitious times. As the love of strong drink can be restrained only by keeping it out of the madman's reach, so the propensity to breaking cannot, in many cases, be restrained without a degree of confinement hardly compatible with health.

D. 1817.—Some observations occur in this paper, on the effects of drugs when administered to the insane, and on the loathsome practice of forcing aliment into their stomachs. Among others, we find the statement, that it has been ob-

served, with emphasis, by some reporters of diseases, in towns and dispensaries, that the reports of most institutions are searched in vain for *medical* information. Reports like this, however, are quite unfit for *medical* disquisitions; but the time may yet arrive when facts ascertained in this Asylum, together with the practice found most successful there, and the inferences which should be drawn from the facts and the practice, will be laid before the public* in a proper form.—The difficulty of ascertaining the real effects of drugs is great in every disease, and particularly so in cases of insanity, on account of its peculiar nature. In the opinion of the best judges, medicines have been given improperly in this, as often as in any malady; and they have got the credit of cures which they seem to have had no share in producing. There is, indeed, great reason to suspect that, in many instances, cures have been ascribed to drugs, which, though prescribed by the physician, and carefully furnished by the apothecary, were never tasted by the patient. There are, no doubt, some persons, both in mad-houses and out of them, who think themselves neglected if they do not get regularly a portion of drugs: to all these, medicine ought to be promptly furnished. Others dislike it so much that they refuse not it only, but for fear of it their food also: to such, therefore, no medicine is given except on the greatest emergency, and then concealment of it in their food, or persuasion, has always ensured its exhibition. As to the horrid custom of forcing it, as well as food, down their throats, under which some have been choked completely, others thrown in convulsions, and all more injured by the violence used, and by their own furious opposition, than they could possibly be benefited by the operation of any drug whatever, it (forcing) *has never been permitted in this Asylum.*

E. 1818.—We are told here, that it has been said "none but a madman would reason with a madman;"—a most equivocal maxim, oftener founded on apathy, indifference,

* We understand this statement to have come from the pen of Dr. Robert Cleghorn, who at the time, was physician to the asylum. This highly gifted individual preceded Dr. Thomas Thomson in the Chymical Chair of the University of Glasgow, and stood unrivalled at the head of his profession in the West of Scotland, for many years before his death. It is matter of profound regret, that he did not live to complete and publish these half-promised observations on the treatment of insane persons. He was endowed with great learning and eloquence; possessed an original, philosophic, and discriminative mind; and, from very extensive experience, as well as profound reflection, was every way qualified to illustrate any subject in pathology, which he might have chosen to make the object of his research.

and carelessness, than on superior discernment. In fact, as men of sound mind are occasionally less under the influence of motives than they ought to be; so the least sound, while short of idiotcy still feel the influence of motives in no inconsiderable degree, and if is impossible to fix with precision the point, at which motives lose their influence so completely as not to be worth urging. A long chain of reasoning is, no doubt, out of the question; but a short argument, a sententious maxim gravely stated, or an aphorism delivered with solemnity, especially if in the language of Scripture, often produces a sudden calm amid the most furious commotions, and leaves durable effects. When a religious melancholy madman was loudly avowing and vindicating his intention to commit suicide, the very first opportunity, his hand was taken kindly, and in a solemn tone he was reminded of the awful consequences of such a deed, "as no murderer hath eternal life," on which his eyes, formerly glaring with phrensy and despair, were turned towards the ground; he appeared absorbed in fixed thought, and made no more mention of suicide. This man afterward declared, with much emotion, that whenever the temptation recurred, the text always came along with it, uniformly shielding him from its baneful effects.

F. 1819.—The following hints relative to the medical economy of the Glasgow Asylum are found in this report. The treatment of the patients has been varied according to the features and the causes of their lunacy.—Internal remedies have, in a few instances, been of great service; but, in general, medicine has been of little avail. The warm bath, sometimes conjoined with the affusion of cold water on the shaven head, has been much used, and often with advantage. Some patients have derived benefit from the cold bath. Exercise, especially in the open air, has been of general utility, and much good has been done, in several cases, by pretty severe bodily labour. Rotatory motion, by means of a whirling chair, has of late been tried in a great number of cases, and, in some of them, with wonderfully good effects. By the contrivance used for this purpose, the degree and duration of the motion are completely under command. The operation is always performed in the presence of the physician, and in no instance has it been followed by any of those formidable symptoms, which have sometimes occurred in other institutions, where a more simple, but much less manageable, apparatus was employed. In some instances of unusual docility, benefit has been obtained from attention to certain rules of mental discipline. But the moral management of the patients, by the usual means of restraining their

violence, of correcting their evil habits and propensities, and of regulating their conduct and behaviour, has been of more general utility than any other practice employed. These means, however, are often found to be of little avail, unless those by whom they are used, besides gaining complete ascendency over the patient, gain, at the same time, his confidence and good will.—One of the frantic patients, by forcibly striking his head against the wall of his apartment, had a part of his scalp torn up, so as to expose to view a large portion of his skull. He lost a great quantity of blood: but, by proper treatment, the wound readily healed. It is remarkable, that after this accident,* the state of the patient's mind gradually improved, and, in the course of two months, he was dismissed perfectly cured. Another frantic patient accidentally received a similar wound, and soon after, in like manner recovered.

When outrage is committed, the discipline of the *Asylum* requires that the offender should be put under restraint. But this is done with the least possible severity, and with due attention to health and comfort. The keepers are under the strictest rules, insomuch, that none dare confine a patient without an order of the physician or superintendent; and they are prohibited from using opprobrious, or even passionate language, in the discharge of their duty. Striking, beating, or in any way maltreating the patients, is totally inadmissible: any keeper found guilty of such cruelty would be instantly dismissed, perhaps otherwise punished, according to the enormity of his offence. For the purpose of rendering any refractory patient more docile, the securing of his hands or confining him to his apartment, is the means usually employed, and is seldom found to be long necessary. During favourable weather, the patients are placed in the airing grounds occasionally, and almost all of them daily; and, sociality is often promoted, while the irksomeness of confinement is alleviated, by various occupations and amusements.

G. 1820.—This Report informs us that, in regard to the treatment of lunacy, much still remains obscure. In many

* From this fact, two deductive suggestions seem naturally to present themselves to the inquirer's mind: 1st. That the patient's insanity was not a primary affection, but the consecutive result of morbid action in one of the encephalic organs; 2d. That counter-irritation and sanguineous depletion changed this morbid action, relieved the lesioned organ, and ultimately terminated the man's intellectual malady, by re-balancing those cerebral functions, from derangement of which his lunacy did evidently proceed. It may, therefore, be matter of useful investigation, to determine the manifestations of mental disease, on which an imitative substitute for this *accidental* treatment shall operate with equal success.

cases, little good can be done, but it is of importance to know enough, if possible, not to do harm; and, in order to acquire this knowledge, some experience is necessary. Many patients have been judiciously treated before being sent to the Asylum; but some, even of considerable standing, have not been at all under medical care, or, being placed at inconvenient distances from their proper medical attendants, have been committed chiefly to the care of persons not sufficiently skilled in the treatment of the disease. Violent measures are still too often employed, where milder, judiciously conducted, would be more effectual. Powerful drugs, also, and irritating applications, are not unfrequently administered without due discrimination. Some cases do not admit of great evacuations, and are even aggravated or rendered more obstinate by depletion; yet, to the inexperienced, these cases may appear to be similar to others, where copious bleedings and other evacuations are indispensably necessary. This opinion of the Glasgow physician is corroborated by that of Pinel, Esquirol, and other eminent writers, all of whom are sparing of the lancet, and lay much stress on the necessity of carefully distinguishing those cases where bleeding may be useful from those in which it must be injurious.

After some remarks in recommendation of treating the insane with mildness, the Reporter proceeds to submit some hints on their moral and mental management. Among other means for promoting this object, the attendance of lunatics on divine service is mentioned, and its advantages discussed. Dr. Burrows, who bestows high encomiums on this Asylum, is of opinion, that religious consolation, imparted privately, would be preferable to public worship; and it may be so, says the Report, in particular cases, and especially if the service were performed agreeably to some established modes. For example, were it perfomed according to the mode of the Church of England, where each individual of the congregation repeats and responds at certain parts of the service, it might perhaps lead to an unbridled license of the tongue, which would, indeed, as Dr. B. says, be a mockery of religion. But the form of worship, according to the Church of Scotland, is not liable to the same objection; and, as to preaching to unselected auditors, on topics calculated to excite strong emotions or to foster gloomy impressions, we admit that it would be highly injudicious. Yet, with due respect for the opinion of the author, we cannot, adds the Glasgow physician, approve of the mode which he prefers. If a religious monitor were to enter the wards of a lunatic asylum, he would unavoidably be assailed by patients with

whom it was not intended that he should hold any communition. The very persons, moreover, to whom his attention might be expressly directed, would be injuriously chagrined or irritated, unless they were indulged in expatiating on the very subjects, on which their minds were already too prone to dwell. But all speculative opinion must yield to the evidence of facts derived from actual experience. Sermons have been preached in this Asylum, to numerous and most attentive audiences, for more than four years, and have not yet been observed to produce any injurious effect on the mind of any one of the auditors. Some of the patients, it is true, may have listened to these sermons without having been much edified, but all of them have been gratified, and many of them soothed and consoled.

These sketches are followed by others, on the influence of laborious employment in promoting the cure of *lunacy*. Some patients, it is said, whose cases appeared to be almost hopeless, recovered by labouring in the airing grounds. On various occasions, when this employment was for a time suspended, some of the working patients, whose state of mind had been rapidly improving, remained without farther amendment, or even grew worse; but soon after labour was resumed, they again proceeded to improve. In one remarkable instance, in which the most fanciful and gloomy anticipations predominated, whenever the patient was warmed by toil, his mind was relieved. In general, so speedy was the favourable change in this case, that *it seemed as if the vapours of the brain exhaled with the sweat of the brow!* The beneficial effect of labour on the mind is twofold: it serves not only to dissipate gloomy and incoherent thought by day, but also to prevent the distressing illusions of the night, by preparing the patient for sound repose.

Many of the lunatics, we are informed, write letters which are correctly and even elegantly penned. A great proportion of these are addressed to the physician, while others, not proper to be despatched, are preserved; because the letter of a patient serves as an indication, and as a record of the state of his mind, and may also prove to be a useful document, if his case should ever afterward become the subject of legal investigation. The object of the writer often is to demand the reason of his confinement, or to prove that he ought to be instantly liberated. The style of some is diffuse and rhetorical; others reason more closely; and one ingenious person, whose literary productions are extremely curious, occasionally employs the form of syllogism. Some patients exhibit, in their letters, a wonderful degree of consistency

and acuteness. It is still, perhaps, too common to suppose that all lunatics are, in point of mental degradation, nearly equal; and, therefore, that they are all equally removed from a capacity for common feeling and from a right to common sympathy. But the forms of lunacy are so various, and aberration from soundness of mind is, in some cases, so slight, that it would be no easy task to determine the precise bounds of rationality.

H. 1821.—Mild treatment and exercise, in the form of recreation or labour, are again stated in this Report as having been found eminently beneficial in the management of lunatics. Many of them occupy their thoughts in writing essays, letters, poems, &c. One of our patients, it is said, has written an ingenious vindication of himself from the imputation of lunacy. He philosophically observes, "I find it difficult to divest the mind of recollections on the topics of business, especially in the situation in which I am placed; for the mind naturally reverts to such subjects as have been familiar to it in times past, on which it exerts its energies in multiplying ideas and conceptions, for lack of reasonable occupation; and, in a maze and labyrinth of conjecture, seeks to find out the cause of being immured with beings in the most lamentable state of existence." Another of these patients, in a disquisition on lunacy, distributes the different persons affected with it into three classes:—Dementes, or those who are deficient in mental capacity; Vacui, or those who are completely void of ideas; and the Pleni, or those who possess high ideas of themselves and of their worldly riches and grandeur—lords of the universe—possessors of supernatural powers—divinely inspired—hearers of the heavenly choristers—and receivers of celestial visions and annunciations.

In madness, says the Report, the power of reasoning on some subjects may remain: but when called to act in opposition to the predominant illusions, it proves to be but too feeble an antagonist for those workings of the imagination. One of the surest signs of amendment is an admission by the patient, of fallacy in any of his former illusions; and, in cases approaching to convalescence, it is often highly interesting to observe the reasoning faculty thus beginning to resume its wonted ascendency. Such improvement of the mind is sometimes very naturally accompanied with diffidence of judgment. Instead of immuring the insane without distinction, in the depressing gloom of dismal apartments, where they are deprived of all the accommodations to which they have been accustomed, we should endeavour, says the reporter, to afford them every comfort likely to soothe their troubled

spirits; especially as the enjoyment of such comforts is often one of the best means of promoting their recovery.

This Report returns to the advantages of preaching sermons to the insane. The experience of all those clergymen who have hitherto preached, must have convinced them that the patients selected to be their auditors were capable of listening attentively, and of behaving in the most quiet and orderly manner. Yet, some persons still doubt the propriety of preaching in the Asylum. If, indeed, all our patients were, at all times and on every subject, insane from the time when they were admitted until the instant of their dismission, the attempt to impart to them religious instruction might prove to be fruitless, if not injurious. But some persons are insane only on certain points; some are insane only at certain times, but enjoy long intervals of reason; some are in a state of convalescence from insanity; and, although not possessed of sufficent firmness of mind, nor so free from occasional aberration, as to render it expedient for them to resume their former occupations, or even to mingle with the world, yet are perfectly capable of deriving benefit from moral and religious instruction; and, lastly, some are *not lunatics*, in any degree, but completely cured of that lunacy for which they were admitted; yet, according to the rules of this Asylum, they are obliged to remain in it for two months, or, in some cases of periodical madness, for a longer period, as the necessary term of their probation. The illusions of the insane, no doubt, are sometimes derived from religious impressions, and then great discretion is requisite in regard to religious exercises. But we do not find, among our patients, that religion is a frequent cause of lunacy; and many of our convalescents or probationers, whose malady had not any connexion with religion, are much disposed to attend to religious duties, and to cherish those impressions which they received in their early years, from a religious education. Such persons, before the practice of preaching in the Asylum was introduced, often complained bitterly that they were precluded from attending divine service; and sometimes, at their own earnest entreaties, they were indulged with liberty to go to church, under the charge of a proper attendant. This indulgence was, for obvious reasons, objectionable; but, surely, it would be hard to withhold from such patients the gratification of that public worship, through which our excellent clergymen now humanely impart to them useful admonition and consolation.

I. 1822.—We extract the following observations from the Ninth Report; they will not be without their usefulness. The following detail of symptoms, derived from our obser-

vation, or consistent with our experience, say the reporters, may serve, without the aid of professional knowledge, to direct attention to the state of the mind on the approach of lunacy, and when proper treatment is likely to be of great avail.

The first indications of lunacy are various; and, as might be expected in the accounts given of a malady which exhibits a great diversity of forms, they have been variously described. Headach, giddiness, throbbing of the temples, or impaired vision, have ushered in a paroxysm; and hypochondriacal apprehensions, arising from a disordered state of the digestive organs, have terminated in maniacal illusions. In many instances, the symptoms first remarked, are a defect in the power of attention, fits of absence, frequent talking or muttering of the patient to himself, unmeaning fixed staring of the eyes, a dejected countenance, and sometimes jerking motions of the body, or odd gesticulations. Together with these appearances, the mind is perhaps under the depressing influence of hurt pride, disappointed hope, or religious apprehensions; perhaps it is brooding over some feeling of remorse, fear, jealousy, or chagrin, on grounds which are wholly imaginary. Love is, in some instances, the predominant impression; and it is equally singular and characteristic, that the object of this affection and the patient are sometimes unacquainted with each other. The first indication, in some patients, is an extraordinary flow of high spirits, about to end, at length, in maniacal delirium; in others, extreme terror is first noticed. The countenance is pale, ghastly, and strongly expressive of the inward emotion; the speech is hurried and tremulous; and the extremities are cold, perhaps bedewed with a cold sweat. Soon, however, the eye glares malignantly, the face flushes, and assumes the expression of ferocity, the objects of terror become the objects of vengeance, and the patient is furious. In some, there is an unusual degree of suspicion or of anticipation of evil, and a belief in imaginary plots or conspiracies. In others, there is great irascibility and malignity, and some act of desperation, vengeance, or cruelty, is perhaps the first obvious symptom of the malady. From the commencement of lunacy, and especially as long as the mind continues to be in a state of excitement, patients generally sleep little or none; yet some are disposed to lie constantly in bed, and are unwilling to answer questions, or to converse with their friends or relations. In some instances, the patient carefully conceals his illusions for a long time after they have taken possession of the mind. Perhaps, for the first time, he reveals them confidentially to his clergyman, or to his medical attendant. As soon, however, as maniacal illusions are betrayed, the nature of the case is manifest.

The different physiological views which have been taken of the nature of lunacy, the reporters go on to say, may have possibly had some share in leading to certain discrepances, observed in the accounts given of the symptoms. Some of the most intelligent writers on the subject are not even agreed as to the organ which is primarily affected; nor have they settled whether lunacy is to be ascribed chiefly to moral or to physical causes. We are disposed to think that the disease originates in the brain; and that, perhaps, in every instance there exists a physical cause or predisposition to insanity. The active remedies which are frequently employed with benefit, in cases of indigestion, may sometimes owe their good effects, more to their influence on the state of the head than is generally supposed; and, where there is a known predisposition to lunacy, the possibility that a loss of tone in the digestive organs may proceed from some change going on in the brain itself, ought not to be overlooked.

From the preceding sketches may be elicited a general idea of the mode, economical, moral, and medical, of treating insanity in the Asylum at Glasgow; and we trust, in conclusion, that to many of our readers, the information they contain will be acceptable as well as useful.

IV.

Medico-Chirurgical Transactions. Vol. XII. Part II. 8vo. pp. 589, with coloured plates, price 18s. in boards. London. October 1823.

When the Society promised a part of a volume every half year, we doubted the propriety of the promise, and the power of fulfilment on the part of the Society. It is now more than a year since the first part of this volume was published, and we commend the committee of publication for waiting till their materials were ample, rather than coming forward with a light cargo. Although the present part is inferior to many, it is equal to some of its predecessors. It has the merit also of presenting a great variety in the bill of fare —no less than forty-three articles. It is a great pity, we think, that the quality of the plates should so enhance the price of the work as to render it beyond the reach of thousands of the lower orders of the profession. The medical journals, however, remedy this evil to a considerable extent; and, in order to aid in this useful operation, we shall give a very ample analysis of the articles in the order of their standing.

ARTICLE I. *An Account of two Cases of Biliary Calculi of extraordinary Dimensions.* By T. BRAYNE, Esq.

Case 1. A widow woman, 55 years of age, of spare habit and melancholy temperament, had enjoyed uninterrupted good health for many years prior to the last twelve months, during which period she had felt such uncommon languor and prostration of strength as to be rendered unfit for her occupation, that of nursing the sick. About six months before the date of report she was seized with paroxysms of pain in the epigastrium, generally commencing towards night, and continuing several hours. These returned every two or three weeks, for five or six times successively, and generally succeeded by slight jaundice, which commonly disappeared in a short time, leaving the patient in her usual health. About a month after the last attack she became the subject of common fever; and on the 26th of October, 1820, our author found her with small quick pulse, foul tongue, insomnium, constipated bowels, scanty high-coloured urine, and great mental irritability, amounting almost to insanity. She complained of no local pain; and in this state she continued, with little variation, till the 29th of November,* when she was suddenly seized with severe pain in the left iliac region, accompanied by tenderness on pressure. This urgent symptom continued unmitigated for sixteen or eighteen hours, ending in sudden ease, and presently afterward a natural alvine evacuation, containing a calculus of extraordinary size. The febrile symptoms soon subsided, but the patient remained in a state of low muttering melancholy for some months, from which she at length recovered under the gentle and long-continued influence of mercury. The calculus resembled a pigeon's egg in form, but was somewhat larger. The surface was rough and tuberculated, some of the largest elevations being streaked longitudinally. When broken it exhibited a radiated and shining fracture throughout the facettes of the radii, but without any concentric laminated arrangement. For the details of the chymical composition of this calculus we must refer the curious reader to the original volume. There can be little doubt of its being of biliary origin; but the question is—did it pass the biliary ducts in the shape and of the size it exhibited when expelled the body? Although the thing is not impossible, it is very improbable. In this case, the subsequent death of the patient proved that ulceration was

* The statement is from the 26th of November till the 29th of October, which is manifestly an error.

the process employed by Nature to open a passage for the extraneous body. An adhesion was discovered between the gall-bladder and the duodenum, the size of a shilling, and in the centre of this adhesion was an aperture that would admit a crow quill.

Case 2. Grace Adams, 65 years of age, demanded Mr. Brayne's instant attention, on the evening of the 24th of February, 1822, when he was informed by her friends that she had been entirely obstructed in her bowels since the 19th, although various means had been tried by her medical attendants. She was lying on her back, her abdomen prodigiously inflated, the extremities cold, the pulse scarcely perceptible. Although her articulation was indistinct, she was yet sensible, and her countenance did not exhibit the true Hippocratic features. She vomited incessantly, and had rejected every thing from her stomach since the 19th, when the sickness had first come on, without apparent cause. Three drops of croton oil, in two pills, were ordered, one to be taken immediately, and the other in four hours, if necessary. The second dose was taken; but on the following morning the bowels had not been relieved, though the stomach was more quiet than it had been. Castor oil—colocynth and small doses of opium. In the evening some thin, offensive, dark-coloured stools had been procured, and the more threatening symptoms were subsiding. Various purgatives and injections were persisted in, and, after two or three days, evacuations more natural in colour and smell were freely passed. The figured motions were small and somewhat flattened, which induced the apprehension of a stricture, but in a day or two they became of their natural size. From this time the patient rapidly improved, and soon left her bed. A few days after this period she suddenly passed by stool, after some tenesmus and straining, a calculus; and in the course of the next six days another, both of the biliary character. The first calculus voided is of a singular form, being somewhat of a flat square shape, with its angles rounded, and its two sides hollowed out as if compressed when soft by some convex body. Our author considers the composition of these calculi to be of the same nature as that of the majority of biliary concretions.

"A comparison of these cases will lead to several interesting points of remark. In some respects they run nearly parallel. The sex and ages of the patients;—the comparatively slight degree of hepatic irritation excited;—the nocturnal returns of the pain in the epigastrium; the trivial jaundice in one, and the total absence of it in the other;—the severity of the symptoms of the intes-

tinal obstruction;—and the subsequent dropsical affection of the thorax, are obvious coincidences. The calculi in some respects are very dissimilar, though they have many properties in common. In that obtained from the patient Woodward, the cholesterine appears nearly pure, and its radiated arrangement is not more curious and beautiful, than difficult to conceive in its origin. The deposition by laminæ may very naturally be expected to result from some peculiar progressive effects of a vitiated and stagnant secretion. But on the formation of the radiated example I am incapable of proposing an explanation." 267.

That biliary concretions may be formed in the duodenum, into which the bile is immediately poured, we have strong reason to believe, not only from the size of some calculi passed, but from the circumstance of their being often unattended by jaundice, which could hardly be the case, had they proceeded along the biliary ducts. That they occasionally find a direct ulcerated road from the gall-bladder into the gut, there can also be no doubt, from the appearances observed on dissection.

ARTICLE II. *On the Influence of Local Irritation in the Production of Diseases resembling Cancer and other Morbid Alterations of Structure.* BY HENRY EARLE, Esq. F.R.S.

The surgeon, as Mr. Earle observes, is often placed in trying situations, when called upon to decide on the propriety of putting his patient to a painful and hazardous operation; or abandoning him to his fate, without hope of remedy.

"This anxious and most painful alternative applies not only to cases of extensive mechanical injury, where we are often called upon, without any previous knowledge of the powers of the constitution, to decide between mutilation and probable destruction, but likewise to cases, which from their progress and character, bear a close resemblance to those malignant affections which experience teaches us are too deeply rooted in the constitution to be eradicated by any local operation. It is to the latter description of cases that I wish to call the attention of the Society." 269.

Our author remarks that the almost certain recurrence or co-existence of disease in remote parts of the body, and particularly in some vital organ, after the removal by operation of fungoid affections, has induced many practitioners to avoid operating altogether under such circumstances. Such decision Mr. Earle highly approves. The same observations, he thinks, will hold good in most cases of carcinoma, where the constitution is evidently tainted—although in these latter cases it may sometimes be expedient to obtain temporary

ease and prolongation of life by the infliction of a tractable wound. Not unfrequently, on the other hand, says Mr. E. we meet with instances of disease, at first sight so formidable as to deter from any operation, but, on inquiry, found to have originated in some local irritation, by which the morbid action is still maintained. In most of these cases, the constitutional disturbance is produced by the local pain and excitement. Our author has met with several instances of this description, in which patients have been rescued from the gradual inroads of a lingering disease, and perfectly restored by extirpation of the local malady. Some of these cases he proposes to adduce, and at the same time to point out certain circumstances which, he thinks, have not met with the attention they merit.

On Diseases of the Lips.

Any morbid process, Mr. Earle remarks, in the neighbourhood of the external apertures of the body concerned in the operations of ingestion or excretion, is liable to assume an indurated and unhealthy aspect from the continual irritation to which it is subjected in the diurnal performance of the functions of the part. Thus, ulcerations about the mouth are often extremely difficult to cure, and, if neglected, will assume the indurated character of carcinoma. In advanced life, they will frequently exhibit a very unpromising aspect, and induce the surgeon to form a most unfavourable prognosis. Mr. E. has seen several of these, and the event in all but one, has led him to believe that they are not carcinomatous, or dependent on any constitutional disease, but on local irritation. Under the rigid discipline hereafter to be mentioned he thinks they may, if taken early, be almost always cured; but commonly, they do not fall under the surgeon's eye, till the disease has made such progress, as renders it most safe to remove it by operation, as in the following instance.

Case. Mr. Webb, aged 64, consulted our author in June, 1816, for a disease at the angle of the mouth, which began in December, 1814, with an induration which soon ulcerated, and had since continued to make progress unchecked by any application.

"At the time of his calling upon me, the right angle of the mouth had ulcerated so far as to allow the lip to fall and to admit of a constant flow of saliva. The ulcer had a very irritable appearance, and occasionally bled, and around this, to a considerable extent, the cheek had a very firm scirrhous feel, and the glands under the jaw were enlarged. He suffered constant severe pain, and was scarcely

able to introduce any food into his mouth, from the swollen state of the lips, and the pain it caused him. The discharge had a most fetid smell, and affected his breath so much as to make it very unpleasant to be near him. On minutely examining the part, it appeared to me possible to remove the whole of the disease, and by taking away the teeth in the lower jaw, which were rendered useless by the loss of all the corresponding ones in the upper, that the cheek and remaining portion of the lips might be brought into contact. I represented to him that I could not answer for the success of this operation, that every thing would depend on being able to obtain union by the first intention, and that if we failed in this, it was more than probable the wound would never heal: I further stated that if we succeeded in closing the wound, the relief might only be temporary." 273.

Under these disadvantageous circumstances, Mr. Earle removed the whole of the disease by an operation, after which the patient was not permitted to speak a word, eat, or drink, except by an elastic tube. Nothing sinister occurred during the treatment—the whole healed by the first intention, and in ten days the patient was sufficiently restored to leave his house. He has since continued to enjoy good health. In four cases of less extensive disease of the lower lip, having all the same threatening aspect, Mr. E. has removed the parts with perfect success. It has been remarked indeed, by all surgeons, that carcinomatous affections of the lip are removed with far greater prospect of success, than similar affections in other parts of the body.

"From my own experience, and from witnessing the success of others, I may venture to affirm, that few cases afford greater promise of success than those corroding ulcers, with scirrhous edges, which occur about the lip. The operation is so simple, and the wound so constantly unites by the first intention, that in cases that do not readily yield to local and constitutional treatment, it is far better to resort to it, and often the deformity will be less than when the ulceration heals without any operation. One circumstance may be worth adverting to, both in operating for the removal of a diseased portion of lip, and in the hare-lip operation. It is better to introduce first, the pin that is nearest the edge of the lip, the exact coaptation of the red margin of the lip is thus rendered more certain, and where this is nicely attended to, it is hardly possible, at a slight distance, to perceive that any operation has been performed." 277.

Cases occasionally occur, under peculiar states of constitution, when the application of stimuli, which have been previously harmless, will produce diseases of a very anomalous nature, as the following case communicated by Mr. Stanley will show.

A young gentleman, aged 19, met with a severe accident, attended with a considerable loss of blood, which reduced

him to a very weak state. Being induced during convalescence to smoke a segar, there arose, in two days afterward, an incrustation about the size of a sixpence, formed upon each lip at the parts which had been in contact with the segar. These incrustations were soon detached, and two sores were discovered beneath them, circular and excoriated, with matter on their surfaces. The absorbent glands under each side of the jaw swelled, and seemed disposed to suppurate, with disturbance of the general health. In five weeks after their appearance, they spontaneously healed; after which, eruptions of a papular character, appeared over the whole face and neck. These gave way under the use of alterative doses of the blue pill and sarsaparilla, but the disturbance of the general health did not subside for a considerable time.

"The case," says Mr. Stanley, "seems to present an instance of a vegetable poison producing sores that would, under any other circumstances, have been regarded as syphilitic, or, at least, as belonging to the pseudosyphilitic form of disease; these sores, irritating the absorbent glands in their neighbourhood, and affecting the system; the latter conclusion seems justified by the appearance of eruptions after the healing of the sores." 279.

Integuments of the Nose and Face. Affections resembling cancer are not very uncommon in these parts, and our author has successfully removed them by operation. Their causes may sometimes be traced to the irritation of snuff, shaving, but especially the vicissitudes of the weather.

"In all these diseases occurring in the integuments of the face in persons advanced in years, if the character does not improve under proper treatment, it is advisable to remove the disease, which may be done in a large majority of cases with every prospect of permanent success." 282.

Tongue. Diseases of this organ assuming the character of carcinoma are generally submitted to the knife; but, in our author's mind, doubts arise as to their probable nature. "The period of life at which many of them have occurred, and the frequent success which followed the operations, are alone sufficient to create a reasonable scepticism of their being cases of carcinoma." Our author does not call in question the propriety of such operations, where the whole of the morbid part can be removed with safety. Such operations, however, are far more formidable than when the life is affected.

"Not unfrequently, however, cases occur in which the disease includes parts which are beyond the reach of any operation. Under such circumstances, it is most fortunate that many of these affections will be found to yield to a proper combination of local,

with constitutional treatment; even where the characters of the disease bear a very close analogy to carcinoma. Under the head of local treatment, I would place in the first rank, the removal, as much as possible, of all local stimuli, such as the taking away any decayed or projecting tooth, the shielding the tongue from pressure by covering the teeth with wax or soft lint, the *complete privation of the faculty of speech*, the frequent cleansing of the mouth with a stream of water, or any medicated liquor from an elastic gum bottle, instead of gargling or washing the mouth by any muscular effort, the employment of the most mild unirritating food, and, in bad cases, the prohibition from the use of solid food, substituting in its room, milk and strong broths, which may be thrown into the stomach through a tube passed down the œsophagus, and even, in some cases, introduced through the nostril. Such a plan of treatment requires much firmness and resolution on the part of the patient: but I can confidently state, that it will be occasionally followed with success. When there is any enlargement of the glands, it will be right to combine with this the repeated application of leeches under the chin. As local applications to the ulcerated surface, few are more efficacious than a solution of nitrate of silver, or very much diluted nitric acid, in the proportion of three or four drops to the ounce. Occasionally a solution of arsenic is very useful. Any of these may be thrown upon the ulcer with a syringe, which will be found better practice than keeping lint moistened with any lotion, constantly applied to the part."* 285.

Prepuce. It is generally in old people that the deleterious influence of the constant application of local stimulants about the prepuce appears. When the disease is far advanced, it sometimes includes the glans penis, or becomes so connected with it round the corona glandis, as to render it necessary to remove that body, together with the diseased ingument.

"The following appears to be the history and progress of this affection, which has been generally considered as cancer of the penis. It invariably occurs, as far as my observation goes, in persons with elongated foreskins. A want of proper attention to cleanliness in

* "This plan of cleansing wounds with a stream of water thrown on the part from an elastic gum syringe, I have frequently found extremely useful, not only in ulcers of the tongue, but in any painful ulcerations about the tonsils or fauces, in which cases it frequently happens that the effort of gargling is productive of great pain, and is very insufficient to remove the sloughs, and inspissated sputum, which is often very tenacious and difficult to be got rid of. All that is required, is for the patient to hold his head over a basin, with his mouth open, and by compressing the elastic bottle, he will throw a stream with considerable force on any part of the throat to which he may wish to direct it. This may be readily done by patients in the most enfeebled state."

removing the secretion from behind the corona glandis, will often lay the foundation of this complaint. The prepuce, from the confinement of this irritating matter, is excoriated, and what at an earlier period of life would be called gonorrhœa præputii is the consequence, the part becomes œdematous, the frænum thickened, and it is soon impracticable to withdraw the foreskin. Phymosis being thus established, the frequent passage of the urine over the inflamed skin, causes is to ulcerate, and the continual application of so stimulating a fluid produces much surrounding swelling and induration. Not unfrequently, the natural opening in the prepuce becomes nearly obliterated, and the urine dribbles away through several ulcerated apertures. An intractable disease is thus established, for which, when it has attained this height, the knife is the only remedy." 208.

The operation may be resorted to even when the characters of the complaint have assumed a very malignant aspect, and with confident expectation of success.

"If taken at an earlier period, the disease is perfectly remediable by removing the exciting causes. The greatest attention to cleanliness is the first requisite, and for this purpose, an elastic gum syringe, with a blunted pipe, should be frequently employed to wash away the secretion from behind the corona glandis, and to convey any medicated lotions to correct the morbid action which has been excited. Where phymosis is quite established, and the opening is much contracted, an elastic gum catheter should be introduced, and if no disease in the urethra or prostate gland prohibit the practice, it should be retained in the bladder. The irritation from the constant flow of the urine, will be thus effectually prevented; and, generally speaking, the swelling and hardness will subside sufficiently to enable the patient to withdraw the skin to admit of the exit of the urine without passing over the prepuce. The introduction of a small portion of sponge will often assist much in dilating the contracted orifice; but where these means do not succeed, it will be right, in some cases, to divide the prepuce, and expose the glans penis. I have known this operation succeed perfectly in a case which had been condemned to amputation. No operation should, however, be attempted, until the soothing plan of treatment has been tried, and the part brought into as quiet a state as possible; nor until the disease in the urethra, if any exist, be remedied as far as may be." 290.

Mr. Earle thinks, that in many cases where the whole of the penis is removed, the good effects would have been secured by a removal of diseased integument only. The contraction of the urethra, after operations of this kind, is often very troublesome, and, he imagines, might probably be obviated by a small slit being made in the urethra after the circular incision.

The soothing treatment, Mr. Earle observes, which has been recommended in these local diseases, may appear, and may sometimes really be, inadequate to counteract the morbid ac-

tion going on. In many cases, however, he feels convinced it will succeed. No possible harm can result from a trial being made, as, in cases which may ultimately require to be extirpated, it is most desirable to allay irritation by every possible means, and none is so powerful as a state approaching to uninterrupted rest, as is every day witnessed in the beneficial influence of rest in diseases of the joints and vertebræ.

Chimney Sweepers' Cancer. Mr. Pott has left us a concise and accurate history of this curious disease. It is, according to Mr. Earle's opinion, invariably produced by the irritation of soot applied to the rugæ of the skin.

"The characters of the complaint are peculiar, commencing in a warty excrescence, which, in some cases, will remain nearly stationary for several months, or even years. After a time, the excrescence discharges a thin acrimonious ichor, which excoriates the surrounding skin. Ulceration now takes place in the centre, and the edges of the wound become everted, and throw out a luxuriant growth, with schirrous hardness, which discharges a very fetid irritating matter. The most common situation for this complaint is the lower part of the scrotum; but this rule is not without exceptions: a remarkable instance of its occurrence at the wrist of a gardener, who was every spring employed to distribute soot for the destruction of slugs, is related by my late father in the last edition of Pott's works. Some instances have also occurred where the disease has taken place in the integuments of the face. As the disease advances, the parts immediately contiguous become affected, it spreads downwards to the perineum, and, if not arrested, will include the whole scrotum; at the same time, it not unfrequently extends itself to one or both of the testicles. When the testicle is first affected, it becomes firmly connected with the diseased scrotum; it enlarges, and becomes greatly indurated: ulceration, and sometimes sloughing, then takes place, leaving a deep excavated ulcer, that penetrates into the body of the testis, which does not appear disposed to the formation of fungous growth, similar to what occurs when the scrotum is the seat of disease. The same observation applies when the complaint has extended itself to the inguinal glands; its progress in glandular structures appears to be more rapidly destructive without the slightest effort at reparation. The disease, in every instance that I have seen, except one, extended itself to the parts immediately contiguous. The inguinal glands are often enlarged, but they will generally subside on the removal of the diseased scrotum; clearly proving that the disease is not commonly communicated in the course of the absorbents. This is a very important feature in the complaint, and one which most materially influences the prognosis and treatment. I know but one exception to this rule, where a bubo formed, which suppurated, and the sore assumed the same characters as the primary affection in the scrotum. Even where the testicle is

affected, the disease is confined, for a time, to that gland, but it subsequently extends itself up the spermatic chord, into the cavity of the abdomen, where it proves rapidly destructive. Not only is the discharge from the sore very fetid, but the perspiration from the whole body, which is generally copious, has a very peculiar ammoniacal odour, which cannot be mistaken when once recognised. The countenance has a peculiar leaden hue, and the general health is materially affected by the severity of the pain, the want of rest, and the constitution having to contend with a disease which it is incapable of throwing off." 299.

This disease rarely attacks under the age of 30 years—which accounts for its comparative infrequency. In addition to this, our author is disposed to think that "a constitutional predisposition is required, which renders the individual susceptible of the action of the soot." According to Mr. Earle's experience, no topical applications or internal remedies have the slightest influence over the disease. The scalpel is the only resource, "and that may be resorted to with the most confident expectations of success, provided the whole of the disease can be removed." Even when the inguinal glands are enlarged, this, he thinks, ought to be attempted. "Where the testicle has become affected, provided the spermatic chord has not participated, it will be right to give the patient the chance of recovery rather than abandon him to a miserable and painful death." In two instances of this kind, Mr. Earle has known the operation to succeed, contrary to the opinion of Pott.

Our author has appended two cases to this paper, but we need not stop to analyze them here.

ARTICLE II. *On the Destruction of the Fœtal Brain.* By Mr. HAMMOND.

This case is as curious to the physiologist as it was distressing to the parties concerned at the time of its occurrence. A young woman, having an unusually narrow pelvis, could not expel the fœtus by the usual means, and it became necessary to open the head. The skull was perforated near the fontanelle, and a portion of parietal bone was removed. Three fingers were introduced into the brain of the fœtus, the cerebrum was "completely broken down, and about two ounces of brain taken out. The head and the whole of the fœtus were then quickly extracted."

"The child immediately cried heartily, and breathed in a perfectly healthy manner, and with the usual apparent strength. It bled considerably from the wound in the head; a dossil of lint was applied, and kept on by adhesive plaster. This seemed to moderate, but not to stop the hæmorrhage: the child passed fæces and

urine, and for twelve hours the functions of life seemed to be carried on in the usual and healthy manner; the child frequently crying loudly. After that time it became weaker, cried more feebly, looked very pale, and seemed gradually sinking; for ten hours it continued in this state, during the last two it was slightly convulsed. The bleeding from the wound, though not violent, never ceased, and the child appeared to die more immediately from the hæmorrhage.

On examining the brain after death, I found the dura mater considerably torn, the cerebrum throughout both hemispheres torn and broken down, so as to appear a mere mass without organization; where the ventricles should have been was filled by clotted blood. The cerebellum, medulla oblongata, and spinal marrow were not injured. The child lived forty-six hours." 309.

This was a most distressing scene for the mother; and the practitioner must have often been reminded of Macbeth's exclamation—

"————————————Time was,
That when the brains were out the man would die."

The case shows that the removal of a part, and the breaking down of the whole cerebrum do not ensure immediate death to the fœtus. In such cases, our author thinks it would be better to divide the medulla oblongata or the spinal chord. We imagine it would not be very easy to divide the spinal chord, at the time we are opening the head. The medulla oblongata might be destroyed by the perforator, or even the finger.

ARTICLE III. *A Case of Bronchocele.* By HENRY SHUCKBURGH ROOTS, M.D. Physician to the Carey-Street Public Dispensary, &c.

This case is brought forward with the view of illustrating the advantage to be obtained from the use of iodine in bronchocele.

Case: A young lady, 19 years of age, of scrofulous disposition, had had, for two years, an enlargement of the thyroid gland, and which had increased rapidly within the last four months, occasioning a good deal of uneasiness, especially when bending the chin, singing, or laughing. The tumour was equal in size to a flattened orange. Eight leeches were applied twice a week, and 15 grains of the carbonate of soda thrice a day. This plan was persisted in for three months, without any material alteration in the size of the gland. She was now directed to take a drachm of the burnt sponge three times a day, and to apply the leeches once a fortnight. This plan was also adhered to for about

three months, but still no reduction of the tumour was effected. Frictions, with liniments, and a continuance of the burnt sponge, were next employed, but without success. The iodine ointment, nearly in the form used by Dr. Coindet, was then applied, the size of a garden bean being rubbed into the tumour night and morning.* She continued the use of this ointment for five weeks, during which time no pain was experienced in the tumour, and some diminution of the size of it was produced: The ointment was now increased in strength from 34 to 44 grains. Inflammation took place in the integuments of the tumour, and leeches were ordered in lieu of the ointment. The inflammation being subdued, she resumed the use of the ointment, and continued it till the latter end of July, when the tumour on the left side was entirely dispersed, and that on the right much diminished. The tincture of iodine was now exhibited (20 drops thrice a day) in addition to the ointment. She took the iodine twice a day internally for six weeks, and then once a day till near December, 1822, when the tumour in every part was entirely dispersed.

We beg again to caution our brethren against the internal use of iodine. It has been productive of fatal effects. The external application is a powerful mean of reducing glandular tumours of all kinds.

ARTICLE IV. *On the Dilatation of the Male Urethra by Inflation, for extraction of Calculi from the Bladder, as practised in Egypt, near 250 Years ago.* By ROBERT MASTERS KERRISON, M.D.

When, in the 14th Number of this Journal, we exposed the absurdity of Prosper Alpinus's account of the extraction of calculi by inflation, we had no idea that this account was publishing in the Transactions of the Medico-Chirurgical Society. We had heard, indeed, that the passage had been quoted by some person, and we appealed to the Society afterward, *viva voce*, whether the whole story did not involve an anatomical impossibility, and was not, consequently, a *juggle?*

* In a late conversation which we had with Dr. Coindet at Geneva, he informed us that he now never administers the iodine internally, as it is productive of a strange and peculiar disease of the system, apparently from its too great action on the absorbent vessels. The ointment he uses is composed of hydriodate of potass half a drachm, hog's lard one ounce and a half, white wax three drachms, liquor potassæ caust. gt. ij. It is to be rubbed twice a day on the part affected, for eight days, then stop for eight days, and begin again, and so on. Leeches, he says, greatly promote the effects of the ointment.—*Rev.*

Not one in the Society attempted to defend it—even the Medical Intelligencer has been candid enough to avow, that when he transcribed the passage from Prosper Alpinus, he "*never meant to convey that the operation, as described by Alpinus, could have been performed.*" "It would, (says he) have been in the highest degree *absurd for us to have thought so.*"* Why, then, in the name of common sense, bring up what are acknowledged to be fictions or impossibilities, as anticipations of modern inventions? We are really surprised that Dr. Kerrison, of all others, should have been so deceived, or should have considered the relation of Alpinus with so little reference to anatomy, as to single out this story "as a point of early surgical *practice*, now submitted for the consideration of the profession." We repeat it, the whole is an anatomical impossibility.†

As for the operation of Hildanus, it is for the extraction of calculi *lodged* in the urethra, and the forceps, of which he has given a drawing, are like a pair of slender sugar-tongs, bearing no resemblance, in structure or use, to those invented and employed by Sir Astley Cooper and Mr. Weiss. In order to make the current of our analysis more uniform, we shall here bring forward an article which, though read at the Society long before Dr. Kerrison's, is yet placed several articles *later* in the volume of Transactions. The reason of this we do not pretend to divine.

ARTICLE V. *Further Account of the Extraction of Calculi from the Bladder, without the Use of any cutting Instrument.* By Sir ASTLEY COOPER, Bart.

We have been a good deal astonished at the running title which has been placed over this article in the Transactions; namely, "on the extraction of calculi by *dilatation* of the urethra." There is nothing in the title of the MS. paper to authorize this heading; and, transposed as the article now

* Med. Intelligencer, for September, 1823, p. 505.

† Not having been present at the Society the night Dr. Kerrison's paper was read, we knew not of its existence, and, consequently, no remark which we have made on the operation of Prosper Alpinus, has any reference to that gentleman, whom we have long respected, though personally a stranger to us, as a very enlightened, learned, and amiable member of medical society. We had heard, as before observed, that a *viva voce* reference had been made to Alpinus, and we made a *viva voce* reply. Afterward, we saw the passage quoted in the Medical Intelligencer, and then we made a written remark on it. In all this, we acted with that candour and independence which, we trust, we shall maintain as long as we have the honour of addressing an enlightened public.—*Rev.*

stands, with the forced title over its head, it appears to the reader as an appendix to the romance of Haly the Arab! yet it is not a romance, as we shall soon show.

In a former volume of these Transactions, Sir Astley hinted an idea which occurred to him, that small calculi might be extracted from the bladder by forceps introduced through the urethra. Such forceps is now well known, and reflects much credit on the ingenuity of Mr. Weiss, its constructor, and, partly, its inventor. From the Reverend Mr. Buller, Sir Astley extracted more than eighty calculi, and, since that time, our author and others have extracted more.

Case 1. Mr. Brodie has communicated to Sir Astley Cooper the particulars of a case of this kind. A gentleman, aged 70 years, had frequent desire to make water, with more or less difficulty in voiding it, sometimes requiring the use of the catheter. On introducing the sound, Mr. Brodie *distinctly* felt some calculi, previously to the sound's reaching the bladder; and, on examination being made by the rectum, a number of calculi were felt in the situation of the prostate gland, apparently contained in a cyst, and sliding on each other under the pressure of the finger. On the first introduction of the new forceps, Mr. B. removed two calculi only; but, in the second attempt, six or seven were brought away of a larger size. The operation was repeated ten or twelve times, at various intervals, in the course of six weeks, and, in all, about 60 calculi were extracted. The largest measured half an inch in one diameter, and five-eighths of an inch in the other, having four sides and angles. At the end of July, the symptoms were very much relieved, and no more calculi could be discovered:—But, having undertaken a journey, he was again seized with difficulty in voiding his urine, and, on returning to town, another calculus was extracted from the membranous part of the urethra by the same instrument.

Case 2. Sir W. B. aged 67, had suffered from long and repeated attacks of gout, from the 35th to the 60th year of his age, since which, the attacks are less frequent, and much mitigated. It is seven years since he first passed gravelly concretions, and these have continued since that period. In 1820, after considerable walking exercise, he passed a quantity of what appeared to have been blood—and fast riding, at any time, induces the same discharge. Sir A. Cooper and Sir Gilbert Blane now attended the patient, and, on being sounded, it was discovered that there was a stone. As it appeared to be a small one, Sir Astley proposed a trial with the new forceps. On the fourth attempt, a stone, weighing 17;

grains, was extracted, on the 18th of July. Some time after this, another calculus was discovered, but, being too large, a dilatation, in this instance, was made of the urethra, by the introduction of bougies. A stone was then extracted, weighing 54 grains, on the 28th of August. Some pain in making water, swelling of the corpus spongiosum, and urethral discharge, followed this last operation; but they subsided under the application of poultices and fomentations.

When the size of the stone is considered, it need not excite surprise, that much difficulty was experienced in the extraction. It was in that part of the urethra near the glands, that the chief impediment was found, and the stone could easily (if it had been thought necessary) have been removed from thence by incision. Upon after-thought, Sir Astley is of opinion that, in removing a stone of equal magnitude, it would be better to make a small incision into the urethra, anterior to the scrotum, than employ force for its extraction through this narrower part of the channel.

In a communication from Sir Gilbert Blane to Dr. Cooke, on the above case, Sir Gilbert observes that—"had it not been for the new method so happily conceived, and so skilfully executed, by Sir Astley Cooper, the patient would have been subjected either to the sad sufferings of the stone, or to the pain and danger of lithotomy."

Case 3. Mr. King, aged 66, mariner, came under Sir Astley's care on the 30th of October, 1822. On sounding, it was found that he had a calculus in the bladder. Sir Astley passed the long urethral forceps into the bladder, and, in a few minutes, extracted four calculi. On the 1st of November, he extracted three calculi—on the 4th, five more—on the 7th, twelve calculi—on the 11th, two—and, on the 13th, three more. On careful examination, no more stones could be perceived.

"It is delightful to hear the expressions of gratitude which this patient pours forth for the relief which he has experienced from these operations, under which he has suffered but a slight degree of pain, and has never, for a moment, been confined from whatever exercise he was disposed to take." 393.

From Mr. Brodie's patient two other calculi have been since extracted by the same means; and Sir Astley has lately removed from a young person, of the name of Errington, a calculus of moderate size, and enabled two others to pass, by withdrawing the instrument in its dilated state; in consequence of which the stones passed, in the afternoon of the same day, in a copious discharge of urine.

The stories which were circulated respecting the non-originality of this instrument and operation, and the raking up of Haly's juggling tricks in Egypt, together with an exaggeration of Hildanus's forceps, have drawn forth some sarcastic remarks from Sir Astley at the close of this paper.

"I have heard that it has been stated that there was no novelty either in this idea or in the instrument. To this I have only to observe, that if the idea had previously occurred to any individual, he had so far buried it in his bosom, that I had never heard of it; and as to the instrument, I am quite sure that Mr. Weiss consulted no musty volume for its formation, for so soon as I mentioned my wish he should construct a pair of forceps by dividing a sound in its middle, and giving it a joint two inches from its end, he, without quitting me, observed, that he should make them to open in the mode which the plate in the former volume represents. Mr. Weiss has a strong and ingenious mind, and does not use petty artifices to obtain employment or character. But let us for a moment suppose, (what I do not believe,) that the idea had occurred to others, and the instrument had been made centuries ago, what are we to say of the apathy of those bright ornaments of their profession, Cheselden, Pott, Hunter, Cline, Home, Blizard, &c. who, if they had heard of such an instrument, had never employed it?" 394.

We have already (page 480 of this vol.) pointed out the absurdity of Haly's operation; and as to Hildanus, it will be seen at page 756, chap. 27, that that surgeon never contemplated the extraction of calculi from the *bladder*, but merely from the *urethra*, when they happened to get jammed in that passage. After directing the anterior portion of the urethra to be cautiously dilated, he introduces a slightly curved forceps —"tunc indice dextro calculum leniter propellit." It is needless to say that this operation has not the remotest resemblance to that of Sir Astley Cooper.*

Article VI. *Cursory Remarks on Smallpox, as it occurs subsequent to Vaccination.* By George Gregory, M.D. Physician to the Hospital for Smallpox and Vaccination at St. Pancras.

Dr. Gregory's opportunities for observation are now extensive, and his zeal in medical science is unquestionable: we therefore look with much interest to this report on the present important subject. That the failures of vaccination have been

* Speaking of originality, we may here remark, that Hey's saw, as it is called, is most correctly delineated in table 32, figure 9, of Scultetus's Armamentarium Chirurgicum, where it is seen removing a portion of fractured cranium. —*Rev.*

steadily and progressively on the increase for some years past, no unprejudiced spectator can deny. "The difficulty," as Dr. G. properly remarks, "cannot be met by reference to the fact, that smallpox, once gone through, does not always secure to the subject immunity from a second attack." Cases of smallpox after vaccination are, beyond all comparison, more frequent than cases of *secondary* smallpox. Within the walls of the smallpox hospital these *last* are rarely seen, whilst "the *former* constitute, at the present time, a considerable proportion of the admissions into that institution." Dr. G. has given a table of the total number of admissions into the smallpox hospital in ten different years; and from this table it appears that, in the year 1810, the proportion of cases of smallpox succeeding vaccination to the whole number of admissions, was as 1 to 30—while, in 1815, it was as 1 to 17—in 1819, as 1 to 6—in 1821, as 1 to 4—and during the year 1822, as 1 to 3½. This is a frightful ratio of progression; and we fear that it cannot be accounted for on any other principle than the actual increase of failures in vaccination.

Above 100 cases of smallpox after vaccination have occurred at the smallpox hospital during the last three years, the greater number of which fell under Dr. Gregory's observation—consequently his opportunities for inspection of this form of disease have been sufficiently extensive to sanction his laying the results before the profession.

Notwithstanding the state of the case as sketched above, Dr. Gregory has no fear for the cause of vaccination in general, however strict the inquiry into its power of protection be made.

"A large proportion of mothers, in the present day, were themselves vaccinated, and, therefore, the popular prejudices may now be considered as in favour of vaccination rather than against it. So far from anticipating evil, I look forward to the public good being benefited by the free discussion of the subject. Many persons have been brooding in secret over the failures of vaccination, and appear to have a fear of expressing their sentiments concerning it, or of meeting the question, in any way, openly. To them the avowed investigation of the subject will, I am persuaded, prove satisfactory. But, besides this, it is only by candid discussion, that we shall ever be able to determine that highly important point, how far the failures of vaccination are owing to causes under our control; and how far, therefore, there exists a reasonable probability of obviating them, either wholly or partially, so as to increase the security of the vaccinated." 327.

Our author's first inquiry, is in what manner and to what

e effects of the variolous poison are modified by the
, previously exerted, of the vaccine virus.

It is hardly necessary, in the first place, to remark that, in a very large proportion of cases, vaccination affords the same immunity as the genuine variolous disease; but what the *exact* proportion is, we are unable to ascertain, because "the failures of vaccination are now far more numerous than they were ten years ago, and no certainty exists, that they have yet reached their maximum."

Where perfect security is not imparted by vaccination, there is at least a modification "of *certain* of the effects" of variolous contagion. These modifications we cannot give in better terms than Dr. Gregory himself has used.

"1. Vaccination does not appear to lessen the violence, or shorten the duration, of the first or eruptive stage of fever, which is generally as severe, and even sometimes severer and longer in its duration than that of the casual confluent smallpox.

"2. It does not appear in like manner to influence the *quantity* of eruption upon the skin, so much, at least, as has been generally imagined. It is true that, in many cases of smallpox, subsequent to vaccination, the eruption has been very scanty; but, in a large number also, I have seen it very copious, more particularly about the face, breast, and upper extremities, and occasionally fully equal, in point of *quantity*, to what is seen in the worst kinds of confluent or coherent natural smallpox.

"3. The great power of vaccination unquestionably consists in modifying the *progress of inflammation* in the variolous eruption; and here it cannot fail to attract observation, how strikingly opposed to each other, in this respect, are the influences of inoculation and of vaccination. Inoculation lessens the *quantity* of eruption, but does not alter, in the slightest degree, the progress of inflammation in that which *is* brought out. Vaccination, on the other hand, while it does not sensibly affect the *quantity* of eruption, always influences, more or less, the progress of inflammation, however copious the eruption may be. The same desirable result, the diminution of mortality, is obtained in either way. By checking the quantity of eruption, or the degree to which inflammation in it extends, the disease is prevented from bringing on those impediments to the functions of respiration and perspiration, which occasion secondary fever, and endanger life." 330.

We cannot but think that Dr. Gregory is a little deceived in concluding, that vaccination does not sensibly lessen the violence of the eruptive stage, nor the quantum of the eruption itself. In the great majority of those cases of ***variola post vaccinam*** which we have seen, the violence as well as the quantum of eruption were greatly mitigated. Has this difference in our experience arisen from Dr. Gregory's having opportunities of seeing more of the severe cases in hospital

practice than those private practitioners who see cases as they occur, without selection?—We imagine that there is something in this.

Our author observes that in all, or nearly all cases of natural and inoculated smallpox, the eruption proceeds to ulceration, more or less superficial, and the ulcers heal by the common process of scabbing and cicatrization. In *variola post vaccinam*, on the other hand, "the cutaneous inflammation is checked at so early a period, that the fluid in the vesicles seldom reaches the state of pus—the cutis vera is never ulcerated, and consequently the healing process takes place, by the conversion of the vesicles into tubercles, and their subsequent desquamation." This, he observes, constitutes a well-marked and important character of the post-vaccine smallpox. Our author also has remarked, that though vaccination modifies, in a large proportion of cases, the progress of inflammation in the skin and throat, it does not always do the same "when the variolous poison fixes itself on other parts, more particularly on the brain."*

The *degree* of modifying power in the vaccine disease varies to an almost incredible extent, in different individuals. Sometimes the post-vaccine affection is so slight as to be confounded with varicella, or even the trifling papular eruptions of warm weather—at others, it is as severe as the genuine smallpox. Between these extremes, every possible gradation has been noticed at the hospital. It is gratifying, however, to know that the instances of *complete failure* are very few in number. Of 57 cases of smallpox *post vaccinam* admitted into the hospital in 1822, 44 were discharged in perfect health within 14 days. Five proved fatal; but their histories did not afford satisfactory proof of their having gone through the vaccine process in a proper manner.†

Dr. Gregory is convinced, from observation, that a disposition to post-vaccine disease prevails in particular families. Thus, he has seen a father and two of his children come in—the former with pretty smart modified smallpox, after *inocu-*

---

* "I may be permitted, perhaps, to remind those who have not been in the habit of seeing smallpox lately, that the eruption on the skin and throat is only one of the effects of the poison. Another, at least equally important, both with reference to pathology and practice, is that which is exerted upon the brain and nervous system; the chief evidences of which are delirium, inflamed eyes, stupor or restlessness, and disposition to erysipelas and gangrene." 331.

† Even this proportion of fatality is so much greater than is met with in private life, that we think our former observation on the difference between public and private practice is thereby strengthened.—*Rev.*

lation—the two latter with very slight forms of the same after vaccination.

It is curious, that a great majority of the cases of smallpox, *post vaccinam*, which have occurred at the hospital, have been in persons between the ages of 15 and 21. The age of 19 is the average of the whole. Our author is induced to think that there is something in the habit of body peculiar to this age, which renders the system more than usually disposed to suffer from the variolous poison.

"In any investigation of the causes of smallpox subsequent to vaccination, it would be improper to overlook the remarkable connexion that subsists between the degree of perfection in the vaccine cicatrix, and the violence of the secondary disease. This important fact was forced upon my attention by the results of the last year's experience at the Smallpox Hospital. It is, indeed, in opposition to the opinion entertained by several authors of acknowledged reputation; but the extent of my opportunities enables me to speak with much confidence on this point. When the scar on the arm is perfect, that is, distinct, circular, radiated, and cellulated; but, above all, when it is small, so that it may be covered by a pea—the secondary affection (if from peculiarity of habit, or any other less ascertained cause, it does occur,) will be slight, and hardly deserve the name of a *disease*.

"On the other hand, whenever the seat is large, and bears the marks of having been formed by high local inflammation, and wants the other distinctive characters just enumerated, the chance of smallpox occurring in after-life will be greater, and *cæteris paribus*, there will be a stronger likelihood of its proving severe." 337.

This principle, he observes, receives a striking confirmation from what takes place in *re-vaccination*. When the cicatrix is perfect, it is impossible, or nearly so, to re-produce the vaccine disease in any thing like its genuine form. "In proportion to the imperfection of the cicatrix, will be the degree of approximation of the second to the primary vaccination."

"These considerations tend to establish, *as a pathological principle*, that the occurrence of smallpox, subsequent to vaccination, is dependent upon the *intensity of the vaccine influence as primarily exerted*; and they lead to the belief, that the appearance of the cicatrix may be taken as a *measure of that intensity*." 338.

The last point to which Dr. Gregory wishes to draw the attention of the public is the fact, that a very large proportion of those persons who have been admitted, during the last three years, with variola, *post vaccinam*, had been vaccinated *in the country*. Notwithstanding the objection to any inference being drawn from this, which was urged at the so-

ciety, our author is still of opinion that this is not a mere accidental circumstance. We know indeed that the domestic servants in London (who are most naturally to be expected as applicants for an hospital when ill) are, in a great measure, supplied from the country. Still the disproportion between town and country vaccination is so great, that our author finds himself under the necessity of seeking for an explanation that may have a wider range of influence than the above. The explanation, he thinks, may be found in the deteriorated qualities of vaccine lymph in the country. This may be the case when the lymph is procured from a distance. But the generality of practitioners in the provinces vaccinate from their own or their neighbour's patients, and are just as good judges of the lymph as their brethren of the metropolis. We shall conclude this paper, which is of very great interest in itself, with the following extract:—

"If the notions which I entertain of the influence of vaccination on the animal economy, and on the causes of its occasional failure, are correct, their general diffusion might assist, not only in upholding vaccination as an object of great national and individual importance, but in checking those unpleasant occurrences which are now making such alarming inroads on the confidence of the public in the vaccine protection. It would induce practitioners to revaccinate, with fresh and genuine lymph, those whose arms do not exhibit the perfect cicatrix;—it would lead those in the country to apply more frequently to large towns for a supply of recent lymph;—it would point out the propriety of their putting less confidence than heretofore in points and preserved lymph;—and it might impress upon all the *indispensable* necessity of a close attention to every part of that process, which, though of trifling import at the moment, is yet of incalculable consequence to individuals in every future period of their lives." 340.

[*The Transactions to be continued.*]

V.

An Essay on the Symptoms and History of Diseases; considered chiefly in their Relation to Diagnosis. By MARSHALL HALL, M.D. F.R.S.E. and formerly Senior President of the Royal Medical Society of Edinburgh. Octavo, pp. 130. London, 1822.

Of the various parts of which medical science is composed, semeiology, the observation of symptoms or signs, is assuredly the most important. Accurate symptomatology will

often make up for defective pathology—that is, for *post mortem* researches; whereas, morbid anatomy is nothing—worse than nothing—without semeiology. Many of the ancients, and even of the moderns, have made good practitioners by careful observation at the bedside, unassisted by the light of pathological anatomy; and it has been well observed by Corvisart—"de toutes les sciences physiques ill n'en est peut-être pas une dans laquelle il importe plus d'interroger les sens, que dans la medecine pratique strictement dite. Toute theorie se tait ou s'évanouit presques toujours au lit des malades pour ceder la place à l'observation et à l'experience."

It is curious that, considering the great number of monographs which our continental brethren have published on semeiotics, we had none to refer to in the English language till Dr. Hall's work appeared.* The great Sprengel is the author of a large volume on this subject; and, in France, *Drs.* Double and Landré-Beauvais have each published extensive treatises on semeiology. The immortal Baglivi was strongly impressed with the vital importance of accurate symptomatology, as appears by the following sentence:—"*Noster in hoc opere scopus pertinet, ut dilucide cognoscatur quantum momenti in medicinâ afferat observatio.*" But as diseases, and consequently their symptoms, vary in different countries, times, and places, we cannot draw the full tide of advantage from works published at a great distance from us—consequently it becomes doubly necessary that accurate observers, in our own country, should occasionally turn their attention to semeiotics; and we are confident their time and labour would be well repaid. There are few who are better adapted for this kind of undertaking than Dr. Marshall Hall, whose accuracy of observation is only equalled by his zeal and industry. We hope, therefore, that this able physician will prosecute the subject farther, and improve the arrangement, which is not very lucid in the present form of the work. It is hardly necessary to add, that this Essay is a new and amended edition of the first part of his work on diagnosis, which is not so fully known to the profession as its merits entitle it to be. On this account we shall lay before our readers such specimens of the present performance as will probably induce our junior brethren, at least, to place the original in their library for frequent reference, as well as careful perusal.

* We mean that there are no works of this kind in common circulation. Some may have been published, but they are not to be seen. Thus in 1791, Dr. Price published a "Treatise on the Diagnosis and Prognosis of Diseases," but it is only to be found in the libraries of the curious.

Our author properly observes, that the immediate and ultimate objects of clinical medicine are the *identification of diseases, and the appropriation of remedies.* The sources of evidence for the *first* object are the symptoms, history, and *post mortem* examinations. The last of these sources is omitted in the present essay, which is confined to symptoms and history.

Although symptomatology and pathology should generally be studied in connexion, not separately, yet the study of the first embraces an object unconnected with the latter—namely, disorder of function, which frequently leaves nothing for the scalpel to reveal after death. It is very desirable, also, but very difficult, to determine the period when functional passes into structural disease.

It has been long remarked, and sincerely regretted, that practical knowledge in medicine, can be taught but to a very limited extent, and that the precious fruits of experience necessarily die with their possessors. But this admission shows the importance of devising the means of rendering medical knowledge more capable of being imparted from one person to another. We have no doubt, but that this desirable object may be *facilitated* by presenting the young clinical student an analysis of those general impressions which constitute the object of experience in the senior. And even where knowledge cannot be transferred, the attempt is useful, because it brings into exercise the faculties, and excites the attention of the tyro.

Chapter I. *Countenance.* The fathers of physic, especially Hippocrates and Celsus, paid great attention to the countenance of the sick. "Medicus neque in tenebris, neque a capite ægri debet residere, sed illustri loco adversus eum, ut omnes notas, *ex vultu* quoque cubantis, perspiciat." *Celsus.* There are changes, induced by disease, in the surface, circulation, cellular substance, muscles, particular features, and *general expression of the face*, which the experienced practitioner turns to good account, and which the young practitioner should early learn to appreciate. It was but a few days ago, that we were invited by a young medical friend, while we were passing a door with the rapper tied up, to go up stairs to see a patient who had but a few days, perhaps only a few hours, to live. On entering the room, the patient's face was turned to the light of a large window, and the immediate impression was, that death was *not* portrayed in his countenance. A minute examination of the case convinced us that the symptoms, though formidable, were by no means indicative of such imminent danger as was apprehended; and the result verified our

first impression. The man is now out of danger. Unfortunately we are utterly incapable of conveying by language any idea of the traits of physiognomy, by which the conviction was impressed on the mind in this and many other instances.

The cuticular surface of the face is much affected by the state of the digestive organs. Deranged function of the liver very generally produces a sallow or yellowish tinge of the complexion. Much also depends on the state of the cutaneous *circulation*, as affecting not only the colour, but the turgidity or shrinking of the surface.

"Among the particular features it is of moment to observe the eye, the prolabia,—the brow, the nostrils, the lips, &c. The eye, in particular, affords the opportunity of judging of the degree in which the serum is loaded with bile in cases of icterus, and of distinguishing that disease from those morbid affections in which the complexion becomes sallow and icterode from the state of the cutis and cutaneous circulation. The state of the prolabia affords an index of other states of the blood,—as of a too serous condition, or of a defective arterialization.—The nostrils, carefully observed denote the condition of the respiration." 16.

Dr. Hall now proceeds to point out the appearances presented by the face in particular diseases, beginning with the "*common acute fever*," or that which usually arises from cold, fatigue, anxiety, &c. In this form, he observes, there is a diffused, vivid flushing of the countenance, frequently with turgidity, especially in the young and sanguineous. The tunica albuginea is apt to be suffused, and there is great febrile heat, with anxiety, tremor of the lips in speaking, and rapid movement of the nostrils. The tumidity diminishes as the fever runs its course.

"In the *Acute Symptomatic Fever* the countenance has a very different aspect, which it is important to observe, especially in a diagnostic point of view. The heat, turgidity, and flushing, the suffusion of the eyes, the tremor of the lips, and the *hurried* movement of the nostrils are absent, whilst the surface is frequently affected with perspiration.—There is also usually an appearance peculiar to the primary disease." 17.

We fear we do not clearly comprehend our author in this last quotation. If by "acute symptomatic fever," he means the fever resulting from acute inflammation of an organ as the lungs, the liver, or the intestines, then our experience does not coincide with his. Surely, in the fever attending on and caused by acute pneumonia or carditis, Dr. Hall will not contend, that the heat and flushing of the face or the hurried movements of the nostril, in embarrassed respiration, are

wanting. The appearances of the face, in fact, vary much, according to the *seat* of the inflammation producing the symptomatic fever. We need only instance pneumonia and enteritis, as presenting marked differences in this respect.

"In *Chronic Symptomatic Fever* the appearances are peculiar. There is a characteristic expression of disease which strikes the common observer, and, still more, the experienced physician; the surface and complexion are cool and pale, or affected with transient or partial heat and flushing, usually without sallowness, frequently with slight lividity, sometimes with cool moisture; there are emaciation and shrinking, the cheeks falling in, the action of the muscles becoming apparent, and the skin forming into greater or smaller folds.—These appearances of the countenance are however greatly modified by the nature and seat of the original disease, as will be particularly noticed hereafter." 18.

Dr. Hall's remarks on the countenance in the different grades of typhus fever are very accurate, but need not detain us. His observations on the appearances in disorders of the digestion (denominated the *mimoses* in another work of Dr. Hall's) contain much originality, and are fully deserving of the practitioner's attention.

"The most severe or acute form of this affection is accompanied with some paleness and sallowness, and a dark hue about the eye; the cutaneous vessels exude a little oily perspiration; the prolabia are slightly pale and livid; the muscles of the face, and especially of the chin and lips, are affected with a degree of tremor, particularly on hurry or surprise, or on speaking. With this state of the countenance there are *conjoined* peculiar morbid states of the tongue, and of the hands, which will be described in their proper place.

"A state of sallowness of complexion, unaccompanied with the appearances just described, usually attends the more *chronic form* of this affection, denominated *Dyspepsia*." 21.

On *Chlorosis* many acute diagnostic remarks are made. He properly observes that the *icteroid* appearance of the complexion in chlorosis should not be confounded with *icterus* itself. In this last the tunica albuginea is tinged proportionately to the general surface.

"The term Icterus is merely expressive of a *symptom* of disease, although it is daily named, and has long been arranged as a distinct *disease*. The shade varies from yellow to green or blackish. But the most important and only *practical* distinction, with regard to Icterus, is that of its *causes* or of the *primary disease*; the principal of these are, 1. *constipation or loaded bowels*, 2. *acute disorder of the digestive functions*, 3. *disease of the liver*, 4. *gall stones*, 5. *hydatids in the gall ducts*, 6. *organic tumours in the abdomen, situated near the biliary ducts*, 7. *the pregnant uterus*, 8. *disease of the right kidney*, 9. *or even of the right lung or cavity of the pleura*." 23.

In the attack of apoplexy, our author observes, there is usually, at first, a general tumidity, flushing, and lividity of the countenance, the pupils being contracted, then dilated, and often unequal. The features frequently lose their symmetry, those of one side being unusually acute, while those of the other are relaxed. The whole countenance is drawn, or the expression lost in coma. The effects of paralysis on the countenance we need not describe.

In the following quotation, there is much accurate observation evinced; and in the first paragraph, the reader will remark something like want of consistency with a passage quoted a page or two back, on "*acute symptomatic fever.*"

"In *Inflammation of the Chest with acute Pain*, or *Pleuritis*, the degree of the pain is marked by a proportionate contraction of the features in general and by acuteness and elevation of the alæ nasi: the *nostrils are moved and dilated by the alternate acts of the respiration;* there is sometimes a degree of *vivid flushing*, terminating abruptly, and bounded by whiteness towards the nose; the heat is inconsiderable, and there is frequently perspiration.

"In *Inflammation of the Chest with dull Pain*, or *Pneumonia*, there is less contraction of the features, but there is an appearance of anxiety, and the nostrils are widely dilated before each inspiration; there is a little heat, but frequently a degree of perspiration.

"In *Inflammation of the Chest with great Dispanœa*, and in cases of *Effusion into the Lungs*, there is usually a general and deep suffusion of the countenance, sometimes amounting to great lividity, and conjoined with turgidity, there is great anxiety, the nostrils are widely dilated on inspiration, and drawn in above the lobes; during inspiration too the pomum adami, and even the chin, are sometimes drawn downwards; the surface is cool and sometimes damp.

"The dawn of *Phthisis Pulmonalis* is marked by a delicate paleness alternated with transient gentle flushing, slight lividity of the prolabia on exposure to cold, an appearance of indisposition, frequently motion of the nostrils from the respiration, and frequently a quivering of the chin and lips on speaking.—Its progress is denoted chiefly by gradual emaciation, in addition to an aggravated state of the other morbid appearances just mentioned.

"In *Hæmoptysis* there is usually a florid state of the complexion, and frequently the effects of dyspnœa are observed in an acuteness and movement of the nostrils. If the hæmorrhagy has been very great, there may be paleness, lividity, coldness, and a clammy perspiration, with great anxiety." 27.

In most of the organic diseases of the heart, the countenance is considerably affected. "In those cases, in which the pulmonary circulation is not impeded," says our author, the complexion simply becomes unusually vivid and florid." In our own experience, which has not been very limited, we have rarely seen organic affection of the heart, without disturbance of the

pulmonary function, and especially on any considerable exertion of the body, or emotion of the mind.

"In *Inflammation of the Abdomen with severe Pain*, there is a continued state of the contraction of the muscles of the face, inducing an unnatural acuteness of the features; the forehead is wrinkled and the brows knit,—the nostrils are acute, drawn upwards, and moved by the alternate and irregular acts of the respiration,—the wrinkles which pass from the nostrils obliquely downwards are deeply marked,—the upper lip is drawn upwards and the under one, perhaps, downwards, exposing the teeth,—the chin is often marked with dimples. This state of the features is aggravated on any increase of pain—from change of position by muscular effort, or from external pressure.—Indeed in cases of abdominal affection it is better to press on the abdomen, or beg the patient to raise the head and shoulders, and *watch* the *effect* on the expression of the countenance whilst the patient's mind is occupied with some other subject, than to ask the direct question whether pressure induces pain—as is usually done; for patients naturally suppose that every *painful* part must also be *tender*, and are therefore apt to answer in the affirmative although incorrectly." 29.

Chapter II. *Attitude.* The term attitude is taken in a very comprehensive sense by Dr. Hall, embracing a consideration of *the posture and motions of the body, the state of muscular debility, power, contraction, and motion, some particular actions, and the general manner of the patient.* Our author thinks that *tremulous motions*, and the *supine posture* distinguish, in an early stage, the acute forms of idiopathic from symptomatic fevers. We should be inclined much more to trust to a minute examination of the organs and their functions, for the detection of local inflammation, than to the criterion above mentioned. It is an old, and generally speaking, a true observation, that when the patient begins to lie on his side, in febrile diseases, it is a sign of returning convalescence. It must be borne in mind, however, that in certain visceral diseases, the side is the posture always chosen by the patient. Our author makes a great many minute observations on position in fevers and other diseases, which evince his unwearied attention to every phenomenon presented to his view, and ought to serve as an example to the young—we might add—some old practitioners.

Having delineated the "posture of fever," Dr. H. goes into some instructive remarks on *tremor*, as a symptom; and these are followed by others, equally valuable, on the attitudes of patients suffering from acute dyspepsy, pulmonary consumption, affections of the head, and paralysis, whether partial or perfect. This brings us to his sections on hydrothorax and organic diseases of the heart, both of which are highly graphic; and, though we feel strong desire of transferring them to our pages,

we must content ourselves with making general reference to them as interesting specimens of semeiotic discrimination and research.

The position necessary in asthma, painful abdominal inflammation, spasmodic pain of the stomach, colic, gangrene, strangulated hernia, and inflammatory disease of the kidney and bladder, are next described with much precision and conciseness. Retention of urine, in acute diseases, is often denoted by a constant elevation of the knees which is *inexplicable* until the cause be discovered.

"In *Organic Disease* in general the patient soon becomes affected with a serious, continued, and unvaried debility, stoops in walking, and moves with slowness and caution. And deep-seated pain or uneasiness is often experienced from the succession induced by *sitting down*, or making *a false step in walking*, especially when there is a state of tenderness from inflammation.

"In the appearance of the *Hand* it is often easy to read a state of pain, anxiety, or other suffering,—it is closed or expanded, or variously moved.

"There is another symptom of importance to be noticed,—viz. the state of *jactitation* and *inquietude;* it occurs in different states of the system, and in some diseases, but principally in cases of *irritation*, *exhaustion*, and *sinking*, and in *Diseases of the Heart*." 47.

This chapter concludes with a simple enumeration of the principal instances wherein spasmodic tremor, paralysis, contractions, convulsions, or rigidity forms the chief characteristic of the morbid state. General convulsion, we are told, p. 48, occurs in cases of diseases of the brain, especially of the parts about its base. This is an important observation; and, we believe its accuracy is confirmed by the best of testimony—clinical and necrotomical experience. The effect of convulsive action within the head, Dr. H. very justly observes, has not hitherto been sufficiently attended to by physicians: hysteric convulsion assumes, from long and frequent repetition, an epileptic character: epileptic convulsion often induces an apoplectic coma; and pertussis, from the violence of coughing, frequently leads to fits, and even to hydrocephalic effusion. Some acquaintance with the hysteric paroxysm has led us to regard that modification of convulsive disease as being prone to determine an excess of blood to the liver or other of the larger abdominal organs, and thus make injurious impression on the functions both of secretion and excretion. We also consider the ultimate effects of chincough as being greatly more unmanageable than the disease itself. By carrying an inordinate distribution of blood to the brain, it forms and promotes a tendency to extravasation of fluid from the lymphatics of that organ. In like manner, it predisposes to

hydro-thoracic effusions, by impelling an undue proportion of blood to the heart and tissues of the chest. Practitioners can never be too vigilant in scrutinizing the variations of this insidious malady.

Chap. III. *Tongue.* The surface of this organ is affected with whiteness, load, fur, dryness, blackness, chaps: its *form* is frequently modified by its becoming swollen, indented, fissured, and lobulated; its *papillæ* are, in some cases, morbidly prominent and enlarged, and in others almost obliterated, leaving a smooth, perhaps tender, surface. It is often protruded with difficulty, from dryness, tremor, or paralysis, and is left protruded in cases of imperfect sensibility. The internal mouth, at the same time, is dry and foul; the teeth are affected with brown mucous sordes; and the breath has a peculiar odour. It is important to remark, whether with a given state of the tongue the *tendency* is to an augmentation or diminution of its morbid character.

Dr. Hall remarks, that the tongue affords one of the best diagnostics of the different kinds and degrees of idiopathic fevers, of idiopathic from symtomatic fevers, and of their complications. Its changes and tendencies denote, in a particular manner, those of the fever itself. Its diversified appearances in fever are well delineated by the author, as are those which occur in the varied forms of dyspepsy. The following is a true clinical sketch.

"The most ordinary effect of an occasional or accidental derangement in the stomach and bowels, is a loaded state of the tongue, the superior surface of this organ becoming covered with a layer of whitish, soft, mucous substance, admitting of being partially removed by the tongue scraper; the whole internal mouth is, at the same time, more or less disagreeable and clammy, the taste depraved, and the breath offensive; and frequently the substance of the tongue is a little swollen, œdematous, and marked by its pressure against the contiguous teeth. In *Acute Dyspepsia* the state of the tongue already described is observed, with some modifications:—the tongue is in general loaded, the mouth clammy, the taste bitter or nauseous, the breath fetid, whilst the surface of the face is frequently oily; in some severe cases, the *load* has been very thick, and has eventually *peeled off*, leaving the tongue red, smooth, and tender; the *substance* of the tongue is generally swollen, œdematous, and impressed by the contiguous teeth: the *gums* are often red, tumid, and somewhat separated from the teeth by tartar, and are easily made to bleed; the inside of the *cheeks*, also, frequently partakes of the œdema, and receives, like the tongue, impressions from the adjacent teeth; sometimes the cheeks and the gums of the posterior part of the mouth have been so swollen as to protrude a little over the teeth; and are

ted by the pressure, or *wounded* by being bitten—circum-
—h are apt to be induced or aggravated by cold. Through
—e road on the tongue, the red *papillæ* are frequently seen, either over its whole surface, or at its point principally; frequently the tongue is not only *indented*, but formed into *creases* or folds; sometimes deeper and more numerous *sulci* are formed, the edges of which are sharp and the sides in contact, and requiring to be separated by the two fingers, or by protruding the tongue further; in some cases the tongue is less loaded and indented, and its edges are red and even. In cases of the *Acute Dyspepsia*, I have seen the tongue affected with deep, foul ulcers, resulting from the slow suppuration of hardness about the size of a horse-bean or nut, situated just under the surface of the tongue, which is loaded, swollen, and foul, with a copious flow of saliva, and a fetid breath. In *Chronic Dyspepsia* the tongue is sometimes affected in a slighter degree, in the manner just described, being somewhat tumid, indented, and sulcated; it is in general, however, less pasty and œdematous; it is frequently covered with a sort of viscid mucus; sometimes it is slightly white from numerous, minute, white *points* crowded over its surface; it is also frequently affected with *fur*, consisting of short fibres resembling those of coarse velvet, and admitting of being separated by the finger. In this affection the tongue is frequently rather dry; and I have seen it, in several instances, sulcated longitudinally. In very *protracted* cases, the tongue assumes several remarkable modifications of form and surface:—in the *first* case there is a universal *enlargement of the papillæ* over its surface, which is now generally clean;—in two instances the papillæ at the most *posterior part* of the tongue became particularly enlarged, causing pain on swallowing, and some alarm to the patients; in the *second* modification, the surface of the tongue is formed into *lobules*, sometimes deeply intersected, and resembling in form those of the base of the cerebellum; at other times, of less regular form, and, lastly, assuming the form of squares; in the *third* variety, the tongue acquires an absolute and morbid *smoothness* of surface, which appears as if glazed, and is tense and unyielding. In all these cases, the tongue is morbidly clean, the mouth, taste, and breath being nearly natural, and its colour, although perhaps rather paler, frequently little changed; the complexion is usually rather pale and sallow, but the surface of the face is free from oiliness, and the integuments from tumidity." 54.

Chlorosis is accompanied by a very characteristic condition of the tongue. In the *beginning*, it becomes rather pallid and tumid, and has frequently enlarged papillæ over its surface; it is somewhat loaded, indented, and sulcated; the gums and prolabia are pallid; the breath tainted. At a *more advanced period*, it becomes cleaner, smoother, still more exanguious, and acquires a peculiar semi-transparency, and a very pale lilac hue. It remains a little swollen and indented, but the papillæ disappear, and often give place to a morbid smoothness. The complexion, prolabia, gums, and tongue.

are alike exanguious, and perhaps a little tumid; the breath is still less tainted, and even acquires an odour of new milk; and the mouth becomes less clammy and disagreeable.

According to Dr. Hall's observation, there is an affection of the prolabium and immediately adjoining skin which he has not seen described. It consists of a repeated dry splitting and exfoliation of the cutis of these parts, and occupies a ring of about one-fourth of an inch across, all round the mouth. It varies in severity at different times, and in different cases: it is, in general, long continued, and appears to result from a protracted state of disorder of digestion.

Our author's notes on the odour of the breath, and on the mode of protruding and of withdrawing the tongue, are concise: they are evidently deduced from patient and reiterated observation.

Chap. IV. *General Surface.* The temperature of the general surface, the state of dryness, moisture, of tumidity or shrinking, or of roughness or smoothness of the skin, the colour, the occurrence of emaciation, or of œdema or anasarca, and the condition of the hands and feet, are the objects comprised in this chapter.

In febrile and exanthematous diseases the superficial temperature is, for the most part, augmented. There are others, however, in which the tendency to diminished temperature, and sensibility to cold, is great. In acute dyspepsy, this tendency prevails, and perspiration is excited by the slightest hurry or fatigue. This peculiarity is most remarkable of all, in strumous disease of the mesentery, in which the patient is greatly sensible to external cold, and to the least draught of air, and in cold weather especially, constantly draws near or hangs over the fire, until his hands and legs assume a brown colour from the influence of its heat. With this sensibility to cold, there is also frequently a great tendency to *early morning perspiration*, which appears to be induced by *sleep*, and to be in part avoided by keeping awake, which is often done purposely. In the study of *all*, but especially of *chronic* diseases, there is no point of greater importance, in our author's opinion, than that of emaciation; much might be learned by a constant attention to this subject, and when it can be done to the actual weight of patients. The degree of emaciation which takes place, depends, in part, on the nature of the *disease*, and in part on the nature and office of the *organs* affected.

There is, says Dr. H. a singular morbid affection of the surface, which has not been noticed by any practical writer, —*the face, and some parts of the surface of the body, become*

suddenly and remarkably puffed and swollen. This affection, in his mind, appears to be occasioned by the presence of some indigestible substance in the stomach, and generally yields to an emetic and purge. With several useful notices of certain morbid states observable in the hands and feet, this interesting chapter is concluded.

CHAP. V. *General System.* The subjects discussed in this section of his Essay, Dr. H. hesitates not to say, are of an importance quite stupendous. We agree with him, and trust our readers will agree with us, in this sentiment. He cursorily refers to the various febrile manifestations, and then briefly notices other morbid states of the general system, which he denominates those of irritation, of exhaustion, of erethismus, and of sinking. In the Doctor's opinion, the principal sources of irritation are, the presence of indigestible substances in the stomach, and especially intestinal disorder and load. He regards the effects of these, as being either gradual or sudden. Having detailed its gradual effects in another work of his,* the author wishes to direct the attention, in this place, to the sudden effects of intestinal irritation. These are acute pain of the head—of the side—of the loins—of the iliac region, or of some other part of the abdomen; attacks of vertigo—of dyspnœa—of palpitation—of vomiting—of hiccup; there are often great anxiety and distress—clammy perspiration—or, on the contrary, great febrile heat and its concomitant symptoms. This state is apt to be mistaken for a disease of the organ principally affected, and bleeding is injuriously prescribed, when enemata and purgative medicines are the remedies.

Exhaustion is induced by over purging, undue blood-letting, and uterine hæmorrhage, especially when they concur with intestinal irritation. Its effects may be referred to the head, heart, thoracic and abdominal viscera, and the muscular system.

"The symptoms which affect the *Head* are, severe pain; beating and throbbing; rushing or cracking noises; vertigo, or turning round of the room, especially on raising the head or assuming the erect position; intolerance of light, and of sound; wakefulness; starting during sleep; awaking hurried and alarmed, with faintness, palpitation, feeling of sinking, of impending dissolution, &c. being overcome by noise, disturbance, or thinking even; and delirium. The

* "See an Essay on Disorders of the Digestive Organs and General Health, and particularly on their numerous Forms and Complications; by Marshall Hall, M. D., &c."

Heart is, in different cases, affected with palpitation, fluttering, irregular and feeble action; there are beating and throbbing of the carotids, and sometimes even of the abdominal aorta; a frequent, bounding, and sometimes irregular *Pulse;* faintishness or fainting, urgent demand for the smelling-bottle, fresh air, fanning, bathing of the temples; feeling of impending dissolution; incapability of bearing the erect position, and sometimes early fainting from the use of the lancet. The *Respiration* is affected in different cases, with panting, hurry, sighing, great heaving, gasping, blowing, moaning, catching, &c. and as has been stated, with urgent demand for fresh air. There is sometimes a sense of great and alarming *oppression* about the *Chest.* There is, in some cases, an *Irritative Cough*—in violent fits—or in the form of continual hacking; this cough appears to originate in the larynx or trachea. The *Stomach* is liable to become affected with irritability, sickness, retching, vomiting, hickup, and eructation; the *Bowels* with constipation, or diarrhœa, pain, flatus, distension, &c. There are very frequently urgent restlessness, tossing about, and jactitation. In some cases, various *Spasmodic Affections* have occurred. We have often to combat the effects of exhaustion in the *puerperal state,* and in cases in which bloodletting has been improperly employed for diseases not inflammatory, or too lavishly in cases of inflammation." 75.

Dr. Hall has observed an extraordinary similarity between the symptoms of the disease described, under the name erethismus mercurialis, by Mr. J. Pearson and Dr. Bateman, and the effects of exhaustion. The descriptions of these authors do not, however, comprise the affections of the head, otherwise, he concludes, the erethismal state and that of exhaustion would be identical.

"Sinking occurs under very different circumstances, and accordingly presents very dissimilar phenomena;—it occurs sometimes as a gradual and simple feebleness, decline, and cessation of the functions of circulation and respiration; at other times it takes place with the more active symptoms of inquietude and jactitation, catching respiration, hickup, &c. sometimes it has the remarkable effect of dissolving the chain of morbid actions and sensations constituting the disease under which the patient has laboured, and of presenting to his friends, and perhaps to his unwary physician, the appearance of amendment, when life is soon to terminate in an unexpected dissolution; lastly, the appearances of sinking quickly follow the accession of gangrene." 76.

From Dr. Hall's observations, it appears that there is a remarkable similarity in the symptoms attending intestinal irritation, exhaustion from loss of blood, the erethismus mercurialis, the morbific effects of digitalis and other poisonous vegetables, sinking, and dissolution. He considers it a question of great importance, how far the existence of one of these states tends to the superinduction of another. The effects of

exhaustion are apt to supervene in cases of intestinal irritation, and are, he thinks, far less liable to occur, from the same application of its causes, during the existence of internal inflammation: a given degree of intestinal irritation, on the other hand, produces unusual effects in cases of exhaustion.

Chapter VI. *The Brain.* This chapter embraces a view of the derangements observed in the energies of the brain in general, the sleep, the mental faculties and the temper, the senses and sensations, and the motions, voluntary, functional, and the sphincters. It is minute by being very free from diffuseness; concise, and at the same time comprehensive.—Much practical knowledge may be derived from a careful perusal of it.

Chap. VII. *Respiration.* Under this head are described the different kinds of dyspnœa and cough,—the effects of a full inspiration and expiration,—the affections of the voice and articulation, and other errors of the respiratory function. As a specimen of the important topics discussed in it, we select the author's remarks on the effects of a full inspiration and expiration.

"A deep inspiration is *apt* to induce cough when the structure of the lungs is affected with inflammation or disease. But this morbid state is more distinctly ascertained by an attention to the effects of a *full expiration.* In many cases of morbid affection of the lungs, indeed, in which a deep inspiration induces neither cough nor other inconvenience, a full expiration, not only occasions cough but other effects which vary according to the *nature* of the pulmonary disease—in *Inflammation of the Bronchia,* or of the *Lungs,* in *Tuberculous Phthisis,* &c. cough and rattling or crepitus are induced: these effects are also induced in some cases of chronic affections of the lungs arising either from slight but protracted inflammation or from disorder of the digestive organs; in cases of *Asthma* too, in which the ordinary breathing or a deep inspiration even, is unattended with any peculiarity, a full expiration excites both cough and the wheezing sound so characteristic of this affection. It is particularly useful to watch the efforts of a full expiration in the slighter affections of the pulmonary structure, and in the decline of pulmonary disease. Of these two modes of ascertaining disease of the lungs, I have long considered the deep expiration the most valuable but the most neglected; I therefore strongly recommend it to the attention of the clinical student." 100.

Chapter VIII. *Circulation.* Error of the circulation is observed in the pulse, in the pulsations of the heart, of the carotids, and abdominal aorta, and sometimes of the jugular vein,—and in the capillary vessels. Among many others, the following are useful hints.

"In the latter stages of inflammatory diseases, the pulse is apt to become or to remain unnaturally frequent as an effect of the *loss of blood* from repeated venesection; it is therefore important to observe every symptom, not to be misled by a continued frequency of the pulse.

"It is not unusual to observe that in various diseases the frequency of the pulse remains, when the morbid actions have apparently subsided; in such a case it is necessary to continue our attention, and watch and wait for the diminution of the frequency of the pulse, and if this event do not take place in a moderate space of time, to ascertain whether the disease be in fact subsided, or only mitigated and pursuing its course in an insidious form." 103.

CHAPTER IX. *Alimentary Canal.* This division of Dr. Hall's work comprises brief notices of the symptoms which may be taken from the morbid affections of the pharynx and œsophagus, the stomach and bowels, and the sphincter ani.

We exemplify the author's manner of treating this branch of his subject, by an extract.

"In some cases both of disease of the liver and of the mesentery, but especially the latter, the appetite has been great, the food has passed off quickly, and the motions have been copious, fetid, and light coloured. They are generally pale and fetid when the food passes through the alimentary canal rapidly, as in *Lientery*. They are very offensive in all cases attended with rapid *loss of flesh*, but in none more than those in which the powers of life are, at the same time, in a state of decline,—as in the decay of *old age*, in cases of *slow fevers*, &c. *Mucous* evacuations are the effect of irritation or inflammation of the mucous membrane of some part of the intestinal canal, especially the rectum and colon. They occur in the *Dysentery*, as the effect of *Corrosive Poison*, and in cases in which the rectum is irritated by impacted and scybalous fæces, and are often mixed with blood; in the last case there are often severe attacks of pain in the seat of the sigmoid flexure of the colon, and copious discharges of blood,—effects which are relieved by evacuating the rectum by clysters." 115.

CHAPTER X. *Urinary Organs.* The symptoms connected with morbid states of the urinary functions relate to the secretion, excretion, and condition of the urine, and to the substances which are apt to be mixed and expelled with this fluid.

When retention of urine is observed in the late stages of typhous fever, it is of very unfavourable augury. It occurs in diseases of the brain and spine, and is found as an effect of debility and of insensibility in general. It is not unusual after delivery, and is sometimes induced by the action of cantharides. It also forms a symptom in retroversion

of the uterus, and of other cases in which the neck of the bladder is compressed by the pelvic organs. In the cases attended by insensibility, Dr. H. has observed a constant *elevation of the knees*, as the effect of the retention of urine, and of the distended and tender state of the bladder.

In hysterical and nervous affections, the urine is copious and limpid, and remains, on cooling, free from sediment. In other cases, particularly in derangements of the digestive functions, it is so charged with matters in solution, that there is not only a sediment, but a pellicle on its surface from evaporation or exposure to the air. Dr. H. is not prepared, he says, to distinguish the different kinds of sediment, and characterize them by their proper chymical qualities, but he has observed that they are sometimes consumed, and sometimes fixed, in the fire. We should be guided, he observes, in prescribing for the gravel, not by the particular *character of gravel* which has last appeared, but by the *actual disposition* of the urine to deposite a red or white sediment. At the time of writing, Dr. Hall had a patient, who discharged a quantity of dark-coloured blood on any exposure to severe cold: the affection yielded to the genial influence of a warm bed.

Chapter XI. *Uterine System.* Dr. H.'s statements here are very general: they relate to catamenial retention or suppression, menorrhagia, fluor albus, and morbid discharges. There is no distinction of these morbid discharges; perhaps, on this subject, the doctor might have consulted with advantage, Mr. Clarke's book analyzed at p. 757, Vol. II. for 1821-2, of this Journal.

We are now arrived at Part II. of Dr. Hall's Essay, and find it devoted to the *history* of diseases. It occupies about seven pages of his book, and is divided into two chapters, on their cause, their course, and the effects of remedies,—and on certain diagnostic and practical rules for dispensary practice. What the doctor has chosen to say on these subjects, will be found to constitute very useful hints for young physicians, to whose serious attention we would recommend the work altogether, as exhibiting the rudiments of Semeiology, in a manner very much distinguished by medical and philosophical observation.

VI.

The Life of William Hey, Esq. F.R.S. &c. By JOHN PEARSON, F.R.S. &c. In Three Volumes, 8vo. second Edition. London, 1823.

WE believe our greatest enemies will not accuse us of advocating the cause of irreligion or immorality; and yet, we fear that, from the notice which we shall take of the work before us, the pious biographer of the very pious Hey, will be induced to class us rather among the sinners than the saints. We apprehend, however, that, in shunning impiety, it is not necessary to run into fanaticism. For ourselves, we confess, that we have always thought Pope's maxim a just one, "To enjoy is to obey"—provided that enjoyment does not interfere with the happiness of others, or contravene any of the obvious laws of nature or reason. This does not appear to quadrate with the rigid morality of Mr. Hey, whose religious principles would not sanction such innocent amusements as a game of whist, or a theatrical representation! One of the objections which Mr. Hey urged against whist appears to us to be exceedingly overstrained. It is this:—

"Card-playing, with all games of hazard, partakes of the nature of a *lot*, which is laying aside our own judgment for the time, and referring the matter to the interference of Divine Providence."

Assuredly it is difficult to entertain a very high degree of respect for the intellect of a man who could suppose the supreme ruler of the universe offended by the mere act of taking a hand at whist, or viewing in a theatre a scene of human passions and actions from the pen of a Shakspeare! We never can coincide with those devotees of solemnity, who would banish recreation from life, and render it a gloomy, or, at all events, an insipid scene of preparation for another world. Do we not see the beasts of the field, the birds of the air, and the fishes of the deep, frisk and gambol, and flutter about with exuberance of joy, whenever the immediate concerns of their existence are provided for?—And should man, whose countenance is peculiarly calculated to express the emotions of pleasure, be the *only* moping melancholy being on the face of this beauteous globe? It is in vain to tell us, that if we are merry we should sing psalms and spiritual songs. There is a time for all things—a time to work, and a time to play—a time to weep over the unavoidable miseries of humanity—and a time to enjoy the few hours of festivity and hilarity, which are permitted to mortals in this transitory and chequered sojourn upon earth.

In making these reflections, we are by no means inclined to deny that—"the biography of a man in whom superior intelligence, considerable attainments, and professional eminence, were combined with a consistent and uniform recognition of religious, moral, and social obligations; matured into habit, and operating with the force and constancy of a living principle, might be contemplated with advantage."* We would only question the probability of examples of ultra-austerity being followed. We think, there cannot be a doubt that, the rigid and over-scrupulous consciences of the Methodists have often brought ridicule on true religion, and supplied many a powerful handle for infidelity to subvert its best principles. But we must now proceed to the work before us.

In a long and able preface, Mr. Pearson has touched upon many highly interesting subjects. He acknowledges his moral obligations to the late Mr. Hey, under whose hospitable roof, he spent three of the happiest, though sickliest, years of his life; viz. the years 1777-8-9. The able biographer avers that, the example of Mr. Hey is adapted to the ordinary condition and circumstances of men in society—"to those who are actively employed in some particular vocation, yet are desirous of devoting the *intervals of business* to the fulfilment of public, domestic, and personal *duties*." Now we appeal to Mr. Pearson, and to the reader, whether this plan does not completely exclude what is termed recreation, or amusement, from the routine of life?—and, if so, whether this example be adapted to the ordinary condition and circumstances of men in society? For our own parts, we think it is *not* adapted for men in society, as we are not inclined to give up those innocent amusements and recreations which smooth the brow of care, and relax the mind after the harassing anxieties of business and duty. Mr. Pearson informs us, that Mr. Hey had no propensity to "a high-strained and rigorous interpretation of the maxims of morality delivered in the Holy Scriptures"—but what, we ask, is the solemn trifling about the sin of dealing a hand at whist, or witnessing a theatrical representation, but a "high-strained and rigorous interpretation of the maxims of morality?"

"True piety," says Mr. Pearson, "enjoins nothing contradictory to the constitution of human nature, as it came from the hands of the great Creator. It allows of no admixture of man's invention in what is offered to our faith, and imposed on our practice: neither does it admit of any compensation for unbelief, by a creditable attention to social and relative duties."—*Preface*, xxvi.

* Mr. Pearson's Preface, p. xvi.

Be it so—but who is to fix the standard of faith? No two sects, even of the Christian religion, are exactly agreed in the articles of belief—nor do we think there is one of them entirely free from "admixture of man's invention." This being the state of things, we humbly conceive that "attention to relative and social duties" does and ought to compensate for doubts as to *all* the articles of faith which are offered for our acceptance by various interpreters of Holy Writ. Belief or unbelief is not a voluntary act. We cannot force the one or the other—and surely we are not punishable for either, merely as convictions of the mind. But we may be wrong in our beliefs or unbeliefs; and it is when we endeavour to propagate our false creeds or doubts to others, that we become culpable.

In this preface Mr. Pearson takes up the subject of infidelity as particularly imputable to the medical profession. We agree with our author in thinking that the charge has been by far too general. There probably is not a greater proportion of sceptics in medicine than in the law—or even in the church; but it has, by some means, become more noticed there than elsewhere. It is not very apparent, as Mr. Pearson observes, why the study of medicine should have any direct tendency to render men irreligious and immoral beyond many other studies. We do not think that it *has* done so. On the contrary, we are firmly persuaded there is *less* immorality in the medical, than in either of the other two learned professions—infinitely less indeed than in the law.

But whatever may be the state of religion in the medical profession, there is unquestionably, as Mr. Pearson remarks, some improvement in the conduct and manners of its members towards each other; and a still greater melioration may be hoped for and anticipated, not only from the example of living practitioners, whose blameless integrity, humanity, and generous contempt of all mean artifices, diffuse a beneficial influence through the society of which they are members, but also from the amenity which begins to prevail in the writings of professional authors, and which promises, in a few years, to banish scurrility, altercation, and abuse entirely out of the confines of medical literature. There is still, however, a very considerable admixture of evil in *medical ethics*, a correction of which is one of the greatest desiderata in our profession. In medical science there are, unfortunately, but few principles so fixed as to command general assent, and few methods of treating diseases reduced to a matter of positive rule—in short, there is scarcely any theory which is not open to animadversion, or practice which is not obnoxious to censure, especially if it prove unsuccessful. Hence a man, dis-

posed to detract from the merit of his professional brethren —to disparage their qualifications, or impute to them incompetency, may easily find specious pretences for arraigning their conduct, and a willing audience to listen to his malicious and interested insinuations.

The following piece of ethical morality we recommend to every class of the profession. A strict attention to it would do more to raise the character of medical men in the eyes of the public than the splendid talents of a thousand HUNTERS.

"Truth and justice forbid us to sanction the errors, or justify the mistakes of our professional brethren; but a man may correct these with good temper and delicacy; he may forbear to disclose them further than his duty to the patient shall imperiously require; carefully abstaining from whatever would tend to ruin the reputation of another in the mind of the patient. It may, indeed, occur in our profession, as in other departments of civil life, *that a man may be so actuated by ambition, inflated with self-conceit, or intoxicated with vanity, as to lose all perception of right and wrong, of decency, good breeding, and humanity. This state of moral insensibility will be commonly proof against all remonstrance and admonition, and must be left to receive its just retribution from the detestation it will excite, and the hostility it will kindle, in all those who have the misfortune to encounter it.*" lxv.

It is scarcely possible, as Mr. Pearson remarks, for a man, even of the best-disciplined mind and purest intentions, to be much engaged in professional business without suffering from the suspicions, misrepresentations, or injustice of those with whom he is concerned. Wisdom and experience will teach him the advantage of being little moved by those things. Under circumstances so irritating to the natural feelings, a silent forbearance will be commonly more discreet, as well as philosophic, than angry recrimination and passionate efforts to resent and repel such injuries.

"An elevation of mind, a magnanimity of spirit, founded on conscious rectitude, will commonly maintain a man under these vexations, and enable him to proceed in the course of his duty, without condescending to notice the assaults of his enemies. If we cannot remain ignorant of the ill offices, to which the peculiarity of our vocation may expose us, we can at least withdraw our attention, or try to forget them. By thus steadily resisting the suggestions of pride and revenge, we shall best secure our own peace of mind and promote our truest interests." lxvii.

It would be endless to inquire into the various schemes, by which men have endeavoured to raise a reputation, attract employment, or gain an ascendency over their patients. He who possesses true greatness of mind and inflexible probity, will neither condescend to study or to practise what honour-

rable principles or feelings cannot approve—and after all, the surest and most successful policy will be found in competent ability, integrity, diligence, humanity, and unaffected kindness. These will stand us more in stead than all that craft, and cunning, and artifice can effect—and without these, the highest tide of prosperity will neither confer present satisfaction, nor ensure our future happiness.

The work before us consists of three parts—the professional life—the moral and social life—and the biographer's remarks on the professional writings of Mr. Hey. We shall endeavour to present our readers with a sketch of each.

1. Mr. Hey was born in the village of Pudsey, near Leeds, on the 23d of August, 1736. At the age of four years he lost his right eye, by a wound with the point of a pen-knife; but he retained the faculty of vision in great perfection with the left, till a very late period of his life. During youth, Mr. Hey was remarkable for sprightliness and activity, engaging in all the sports of children with great ardour and vivacity. This shows us how much our natural disposition may be altered by education and accidental circumstances in the course of early life. Mr. Hey's parents were very pious, and inculcated, with great care, the principles of religion and morality in the mind of their child. At 14 he was placed as an apprentice with Mr. Dawson, Surgeon, at Leeds, somewhat contrary to his own inclinations, which were for a sea-life. As an apprentice he conducted himself with great industry and fidelity, submitting to many offices which ought not, and now seldom are, imposed on young men in similar situations. In his curiosity respecting the effects of opium, he swallowed such a quantity once as seriously endangered his life. In the autumn of 1757 he went to attend lectures in London, under the able teachers of that time. He was a pupil and dresser at St. George's Hospital under Mr. Bromfield—attended the medical prelections of Dr. Donald Monro—the lectures on midwifery of Dr. Mackenzie, &c. In this period a gentleman in London proposed to the young student a matrimonial alliance with his daughter. Mr. Hey referred the matter to his father, like a dutiful child, and by his advice declined the connexion. Mr. Pearson lauds the conduct of Mr. Hey upon this occasion, and recommends it as an example to young gentlemen in general. Mr. Hey's medical studies were never allowed to interrupt the exercise of his religious duties. The gentle persuasions or the scoffs and ridicule of his fellow-students were equally resisted by his unbending mind. Mr. Hey's industry and proficiency, however, secured him pretty well from the attacks of his less pious companions, who were often obliged to have recourse to him for advice

and assistance. "A serious young man," says he, "who followed me, did not escape so well. His fellow-students at St. George's Hospital tossed him in a blanket."

"Mr. Hey was a Christian, a steadfast believer in divine revelation; and, under the sure guidance of this supernatural light, he repelled the shafts of infidelity, resisted the seductions of unlawful pleasures, and exhibited an instructive example to all his young associates, of those several virtues which are the honour and ornament of youth, and secure the approbation and friendship of the truly wise and good." 15.

Having completed his studies in London, Mr. Hey's father proposed a temporary residence in Paris for professional improvement. The young student, after weighing well the matter, declined risking his morals in that licentious metropolis. This, we think, was carrying matters rather too far. If he had had confidence in his own piety he need not have feared Paris, which indeed holds out no greater temptations, after all, than London; and his religious principles would have attracted far less attention in the former than in the latter city. It was in London that Mr. Hey undertook the very difficult task of strictly governing his thoughts, which control over his intellectual operations he maintained to the end of his life. He determined that he would meditate on a given subject while he was walking a certain distance, and that *then* he would turn his attention to some other topic. He was thus accustomed to pass through the streets of London, investigating the various subjects to which his thoughts had been directed by the lectures or other professional occupations. The effects of this habit remained with him through life—"and he found it," says his biographer, "of admirable use not only in preserving him from a swarm of impertinent ideas, but in enabling him to form a correct judgment on many points pertaining to divine and human knowledge." It is not every mind, however, that will bear such perpetual exertion; and it is questionable whether much is gained, upon the whole, by such a plan. The mind, like the body, requires rest, and we have generally found it best not to exercise *both* too much at the same time.

Mr. Hey settled at Leeds as a surgeon-apothecary, but never waived any operation, even of the most formidable kind, as lithotomy, the operation for hernia, &c. He performed lithotomy three times in the first year of his practice, and yet it was ten years before the emoluments of his profession were equal to the expenses of his family. It is very true, as Mr. Pearson remarks, that the talents and skill of a medical man cannot be known immediately on his announcing himself as

a candidate for public confidence. "He must wait on the slow operation of time, and on the intervention of circumstances favourable to the disclosing of his professional abilities." It must, however, be a very unusual concurrence of adverse events which can finally obstruct persevering diligence and competent professional acquirements. Indeed we are convinced, that want of ultimate success, in such cases, rarely, if ever, depends on any other than *moral* causes, quite independent of professional. Mr. Hey himself appears to have suffered retardation in his medical career from "the austere and unbending features of his virtue." Such austerity we consider as unnecessary, at least, in the physician or surgeon, whose conduct should always exhibit benevolence, humanity, and virtue, but never savour of the devotee, and still less of the fanatic.

In 1761 Mr. Hey married Miss Alice Banks, of Craven, in Yorkshire; and during the year 62-3 had the charge of the Leeds workhouse, the only institution at that time appropriated to the relief of the sick and hurt of that town. In 1767 an infirmary was established, and Mr. Hey was appointed one of the surgeons, having taken an active part in giving origin to the institution. It is now capable of containing nearly 140 beds. In 1768 Mr. Hey and some others formed a medical society, which met once a month for the discussion of professional subjects, but did not continue long. Mr. Hey and Dr. Priestley, though so opposite in their theological tenets, were yet friends in scientific pursuits, and maintained a literary correspondence, always avoiding the subject of religion. Publicly, however, Mr. Hey endeavoured to counteract the tendency of Dr. Priestley's doctrines, by writing answers to them, one of the best of which was on the "Divinity of Christ." In 1773 Mr. Hey received an injury in his knee which caused lameness for life. By the year 1778 it appears that his reputation as an operating surgeon stood high, and people came from a considerable distance to be under his care. He had now a large family—eleven children—when he received a second injury, while mounting his horse, which, for some time, threatened his existence. He felt this afflictive dispensation as became a father and husband, but betrayed no discontent, impatience, or dejection of mind. "His religious principles were now tried, and he was enabled to sustain this visitation with humble submission, and a meek acquiescence in the divine will, relying with an unsuspecting confidence upon the gracious declarations of his heavenly Father."

"A manly submission to events, which no human power nor wisdom can control, merits respect, and commands admiration: yet

it must be acknowledged that the triumph of human fortitude receives an excellence and a dignity of a higher order, from being united with a temper of religious devotion, with a cheerful resignation to the appointments of infinite wisdom, and with a sincere and uniform desire that the supreme will may be fulfilled, whatever be the issue of the present dispensation." 49.

His lameness promising to be of long duration, he visited the metropolis for advice, and thence proceeded to Bath, where he remained for some time, and ultimately returned to Leeds in good health, but lame for life, being unable to walk across a room without the aid of a crutch. He now, though with much reluctance, (a very unusual thing with young medical men,) started his carriage, and had no reason to regret this additional expense, since it proved, under Divine Providence, (as Mr. Pearson expresses it,) one great means of protecting his health, enlarging his sphere of usefulness, and protracting a valuable life.*

Mr. Hey united the practice of midwifery to that of surgery, and wrote an Essay on Puerperal Convulsions, but did not publish it, lest it should lead him into a controversy with Dr. Denman, whose opinions on this subject were at variance with his own. In 1812 Mr. H. resigned his office of surgeon to the infirmary, being then in his 77th year, and after having held the appointment with great honour to himself and advantage to the public for a space of more than 45 years! The general board of trustees paid Mr. H. many well-deserved compliments on the occasion, and immediately elected his son to the situation vacated by the father. He still took an interest in the infirmary, and effectually contributed to change a measure in the institution which had long been acted on to its detriment. This was the election of the house apothecary, at a low salary, by the trustees at large, who, of course, are very incompetent, in general, to judge of the merits or qualifications of such a person. The law was reversed, and the election was vested in the medical officers of the charity. It

* The question is often agitated whether a young medical man should set up a vehicle with a view of *getting* practice by making a more respectable appearance? We think there can be little doubt that in large towns, and especially the metropolis of a country, an equipage has some effect in the way above alluded to. But we cannot believe that it is consonant with either policy, good sense, or common honesty, to start a carriage with the mere view of acquiring practice, and before the practice has risen to the point which justifies the expense and secures against the chance of being obliged to put down the equipage, should the adventure (for so it ought to be called) fail to effect the purpose designed. This dangerous experiment, however, is not unfrequently tried, and sometimes succeeds. We do not recommend it to our junior brethren.

would probably be better for institutions, if all the medical officers were elected in this manner—or rather if the election was vested in the profession generally, every member of which should have a vote.

"The election of the officers of a charity by a majority of the suffrages of the Governors includes many conspicuous advantages; yet, like a multitude of other good usages, it has been subjected to great and lamentable abuses. It is well known that, previous to an election large sums of money have been subscribed by the candidate and his friends, in order, by securing a majority of votes, to deter or defeat a less rich, or more scrupulous, competitor. This evil had acquired such a currency, and had grown to so monstrous a magnitude, that many societies endeavoured to render such unworthy measures unavailing, by adopting wise and wholesome regulations: nevertheless, it may be feared that the abuse is not wholly extirpated." 68.

We fear it is very far from being extirpated—and, indeed, there is little hope of freeing these and most other kinds of institutions from the influence of intrigue, party-spirit, bribery, and corruption.

The long and useful life of Mr. Hey was now drawing to a close. He had, generally speaking, enjoyed good health, and had not been afflicted with any serious bodily indisposition till the year 1805, when he suffered from a bowel complaint, which, however, was soon subdued. In 1808, he was attacked by a painful disease, which reduced him to a state of great weakness. In December, 1817, the bowel complaint returned in an alarming degree, and Mr. H. suspected that ulceration of the colon had taken place;—although he so far recovered as to be able to go through his professional avocations, yet he never regained completely his health afterward. He was convinced he had some organic affection that would carry him to the grave. This prediction was verified too correctly in little more than a year from the time it was uttered. Few men, at the advanced age of 82 had suffered less in their mental or corporeal faculties. His eyesight was remarkably good, so that he could read and write without spectacles. His hand was firm, and his writing distinct. His hearing was acute—his vocal powers agreeable—and an imperfection of memory his only grievance. Yet his conceptions were clear, his judgment sound, his mode of thinking orderly, and the delivery of his ideas fluent and perspicuous. Much of the freshness and vigour which Mr. Hey possessed, is attributable, Mr. Pearson thinks, to his habits of early rising, temperance, and equanimity of mind.

After a short, and not very painful illness, Mr. Hey's earthly career was closed on the 23d of March, 1819. To

prevent repetition, we shall here give the appearances on dissection, placed (not very consistently we think) among Mr. Hey's "professional writings." It may be proper, however, first to mention, that Mr. Hey's death was deeply felt and severely lamented through the Borough of Leeds. The public papers abounded with indubitable testimonies of affectionate regret for his loss—proving that the highest estimation was attached to his superior talents, moral character, and useful virtues. We shall not notice the various effusions which appeared in the periodical prints respecting the character of Mr. Hey—since, in general, they are not to be considered as the cool convictions of the biographer. The following passage from Mr. Pearson we shall transcribe.

"His intellectual powers were of a high order. He was capable of profound investigation; was acute in discerning the differences of things; patient and diligent in his researches; possessing an ardent thirst for knowledge, combined with a sincere and sacred love of truth. Whatever object of study he deliberately took up, he pursued with resolute assiduity, until he had thoroughly made it his own, and had attained clear, comprehensive, and correct notions of it, in all its parts and relations.

"Mr. Hey was well acquainted with the works of the best practical writers in his profession; but his reading was rather select, than various and extensive, and he thought and reflected more than he read. As he was no great admirer of the theories of others, so also he was cautious and sparing in constructing any of his own; and from his observations, which were minute and accurate, he was chiefly solicitous to deduce conclusions of practical utility. As an operator he was firm, steady, collected: circumspect and deliberate in forming his determination, and not easily disconcerted by any unexpected occurrence that might present itself. Few provincial surgeons have been called to perform a greater number of the most important chirurgical operations, and perhaps none has been more successful; yet the greatness of his reputation and his acknowledged skill never seduced him into rash and hasty decisions, into presumptuous confidence, or criminal negligence: he was thoughtful, considerate, humane, and attentive to the latest period of his life. As Mr. Hey's religious principles regulated his professional conduct, he was equally sedulous in his attentions to his Infirmary patients, as to those in his private practice, and his kindness and solicitude were distributed with much impartiality to all who were under his care and superintendence. Towards his professional brethren, he maintained a conduct that was upright, candid, and honourable; never withholding praise where it was due, never attempting to raise his own reputation by degrading the talents and merits of others; concealing their mistakes where it was possible and proper, and cheerfully giving them assistance when desired. His superiority and success created jealousy and envy; and these malevolent passions, on a few occasions, broke forth in a form of opposition

that was equally indecent and unchristian. The security, which his religious character gave to his adversaries against the effects of his resentment and the danger of retaliation, encouraged some base and dastardly spirits to assail his reputation and conduct with misrepresentations and slanders, which, except on one or two extraordinary occasions, he scarcely condescended to notice." 102.

With the above extract we must conclude this part of the work—professing, in common with the biographer, our admiration of Mr. Hey's character taken as a whole, but objecting to certain traits of it as bordering on superstition—a fault, however, into which the rising generation is not very likely to fall.

The length to which the biographical part of this article has run compels us to pass over unnoticed the moral, political, and theological portions of Mr. Pearson's volumes, although they contain a great deal of matter highly interesting to the medical as well as the general reader. To the religious, or as they are technically termed, *serious* portions of society, these volumes will doubtless be very acceptable, as professional men have generally been considered to be much disposed to scepticism, and an unlimited believer among them is a testimony of no trifling importance.

We must now take some notice of the 3d part, or small volume dedicated to the professional writings of the deceased —or rather Mr. Pearson's remarks upon them, for it is not to be expected that we shall now review works so generally in the hands of the profession. Passing over Mr. Pearson's enumeration of various papers inserted in the periodical works of the day, he next takes a short survey of Mr. Hey's principal publication, his "Observations in Surgery." In the 14th chapter, Mr. Hey treats of cancer of the penis. Twelve cases are recorded, in nine of which there was a congenital phymosis. All these were subjected to an operation, most of them to an amputation of the whole or part of the projecting portion of the penis. Ten of these recovered, and two died. The successful termination (Mr. P. remarks) of so large a portion of cases by the operation, may excite a doubt in the mind, whether all these histories ought to be regarded as examples of true cancerous affection. Mr. Pearson, whose experience in diseases of this part must be very extensive, offers the following commentary.

"1. The germination of excrescences in great quantities, and of considerable magnitude upon those parts, is not an appearance of rare occurrence, even independently of a venereal malady; and they arise more frequently where the prepuce is contracted than in other subjects, for obvious reasons. These warty substances very often discharge an ill-conditioned and fetid matter, and admit of cure by means that would exasperate a cancer.

"2. A rigidity of the internal membrane of the præputium, with a considerable thickening of the whole substance of this part, attended by an offensive discharge, is not a very rare disease, especially in the middle and declining periods of life. The removal of the morbid part of the prepuce when this change of structure exists, is always an effectual cure of the malady.

"3. In all the well-marked cases of cancer of the penis which have come under the writer's observation, there has been a diseased state of some of the inguinal glands; and notwithstanding the amputation of the penis, and the subsequent healing of the wound, the disorder of the inguinal glands has proceeded to the destruction of life. He would not assert that the amputation of the penis, in a cancerous state, has never succeeded in preserving the life of the patient; but he never had the satisfaction in his own practice, or where he has met in consultation with other surgeons, to witness so desirable an event. The inguinal glands are likewise found in a morbid state in the cancer of the labium pudendi in the female; and the disease terminates fatally. The successful issue of most of the cases recorded by Mr. Hey is the strongest evidence of the propriety of the method of treatment which he adopted; but, in amputating the penis, the writer would suggest, as the result of much experience, that instead of endeavouring to preserve the skin, as in the amputation of a limb, the operator will derive great advantage from saving as little skin as possible." 27.

In the 18th chapter of Mr. Hey's work, a case is related of an enlargement of the female mammæ from obstructed menstruation in a girl aged 14 years.* The most enlarged breast was removed, weighing upwards of eleven pounds, and after the opearation, the girl began to menstruate regularly, and the other breast to decrease in size.

"It is a curious fact," says Mr. Pearson, "that the female breasts sometimes enlarge after the cessation of the catamenia: and in one case where the writer was consulted by a lady of high rank, the breasts became firm, and were much larger than at any former period of her life, not excepting the time when she was bearing children. The breasts did not acquire an inconvenient size, nor was she molested afterward by any troublesome circumstances resulting from this unexpected appearance." 28.

Mr. Hey's work received unequivocal testimonies of approbation from the most eminent surgeons in the united kingdom, and has been quoted by most writers on surgery since its appearance before the public.

---

* It is rather hazardous, we think, to conclude that any disease arises from obstructed menstruation at the age of 14 years—a period which is often, if not generally, attained, before menstruation is fully established. *Rev.*

The last of Mr. Hey's professional writings, is a paper in the 7th volume of the Medico-Chirurgical Transactions, illustrating the effects of the venereal disease on the fœtus in utero, and the modes of its communication. This being an important subject, and Mr. Pearson having dedicated a long appendix to it, we consider it proper to lay the substance of the observations of these distinguished writers fully before our readers.

Mr. Hey first describes what he considers to be the lues venerea or syphilis in the case of an infant between two and three months old. "This child had, upon its chin, a scaly eruption, extending to the angles of the lips; and its body was covered with copper-coloured spots; its voice was become stridulous, and it was extremely fretful." On inquiry, Mr. Hey was satisfied that the mother had had the venereal disease, and, indeed, that she was not, at that time, entirely free from it. Small doses of calomel produced evident amendment in the child, in the course of eight days, but the woman discontinued her attendance. "Several instances, (says Mr. Hey,) have occurred among my patients, where the mother, having been once affected by the disease, communicated it to two, three, and even four children in succession, each of them having the disease in a milder form than the preceding one, and thus, without any ground of suspicion that the mother had received a fresh infection." These cases occurred in families where Mr. Hey was the regular medical attendant, and where he assisted at the time of parturition. "This progressive communication of disease, (says Mr. H.,) to the fœtus in utero has taken place, not only where the mother has received the infection in the ordinary way, but also, where the organs of generation have remained unaffected, both in the husband and wife." He then proceeds to relate the history of a "third woman, who gained her living by drawing the breasts of women during their confinement; she became affected with ulcers at the angles of the lips, which were judged venereal;" and which Mr. Hey also "thought to be of that description." She had drawn the breasts of "a woman who was supposed to be labouring under the venereal disease; and the ulcers did not heal till they were treated as in a case of syphilis." "Several women, whose breasts were drawn by this poor woman, became infected in the manner which I shall now describe."

The case related by Mr. Hey, as illustrating the commencement and progress of the disease, is that of a Mrs. B. whose breasts were drawn twice by this woman; "in about three or four weeks afterward she perceived a swelling of the axillary glands, and complained of soreness in her throat."

Her disease was pronounced to be venereal by a judicious surgeon, who treated it agreeably to that opinion. She continued in the use of the medicines prescribed, about five months. During this period of time she became pregnant, and "at the end of the seventh month she miscarried of a dead child. I attended her during labour, and perceived nothing amiss in the vagina, or contiguous parts." Previously to this confinement she had borne three healthy children, and had never been affected by disease in the sexual organs. In little more than a year she was delivered of a child, apparently healthy, which she suckled. "When the child was about six weeks old, an eruption, which I judged to be syphilitic, appeared upon its legs and arms." The mother and the child took mercury:—the child was in a short time freed from the eruption, but continued to take the medicine during three months. After the lapse of two months more, "two or three small ulcers appeared on the outside of the labia pudendi of the child; the mercurial course was resumed, and the ulcers were soon healed." In about five months "the nostrils became affected, the integuments of the nose were also tender; and the voice of the child grew hoarse. The mercurial course was repeated, and continued for two months. After an interval of about two months the child took the mercurial preparation again during one month; after which there was no recurrence of disease. More than two years after this period, "Mrs. B. bore another child, which was apparently healthy at its birth, and continued to be so for a few weeks. Blotches of a copper colour then appeared upon the skin, but soon disappeared upon having recourse to the mercurial medicines. After some time, (not exceeding two months,) the blotches appeared again, with a small ulcer in the labia pudendi. The child was however cured by a repetition of the treatment, and remained well." Mr. Hey proceeds thus:—"It has appeared to me from several instances, that a man may communicate the lues venerea after all symptoms of the disease have been removed, and he is judged to be in perfect health." To illustrate and confirm this opinion, the following facts are stated:—A gentleman applied to Mr. Hey under the fear of his having communicated the venereal disease to his wife. He acknowledged having had this disease before his marriage; "but from which he believed himself to have been, since that time, perfectly free: I saw no reason to doubt the truth of this declaration." "I visited his lady, and found the labia pudendi and verge of the anus beset with irregular fissures and condylomata; a discharge of puriform matter also issued from the vagina. She was advanced to the seventh month of

pregnancy; but, before her delivery, at the termination of the ninth month, the diseased parts were healed, as I had pursued a mercurial course with as much vigour as seemed prudent in her condition." "The child had no other morbid appearance than a universal desquamation of the cuticle." At the end of a month "it began to have a hoarse squeaking voice, and soon exhibited a number of copper-coloured blotches upon the skin. A scaly eruption also appeared upon the chin; and the anus showed an unnatural redness. I immediately commenced the mercurial course described in the first case; and the child soon got well." "Within half a year, I received a letter from the lady, informing me that the child's complaint had returned." Mr. Hey sent her the prescription for the medicines which the child had previously taken, and he heard nothing more of the family. The author of this paper was aware that doubts might arise whether he had given the proper name to the disease he had described in the preceding cases. These doubts are combated by the following remarks. "When the notice of syphiloid diseases was first laid before the public by Mr. Hunter, the chief force of his argumentation was derived from this consideration, that, although the diseases had a considerable resemblance to syphilis, yet, being cured without mercury, they were thereby proved to be of a different nature. Now, if this reasoning be allowed to have validity, we may suppose the converse of it also to be valid. If the disease in question have the usual symptoms of syphilis, and will yield to no other remedy than mercury, we may fairly conclude that it is syphilitic." He then observes, "It may justly excite surprise, that the gentleman, whose wife's case I have last related, should have remained free from disease when his wife was in the condition which I have described. I confess myself unable to account for this circumstance: I have related all that I know of the case." The concluding paragraph of this paper exhibits so honourable a testimony of the candour, liberality, and modesty of Mr. Hey, that the reader will easily excuse its being transcribed here.

"As I do not mean to enter upon an examination of the distinctions which have of late years been made betwixt genuine syphilis and syphiloid diseases, I trust I shall not be considered as having by the preceding observations expressed any doubt of the accuracy of those distinctions. I rejoice to see the candour and judgment with which every branch of medical science is now cultivated; and must ever rank myself among the pupils of those who, by their discoveries and

successful labours, are daily diminishing the sufferings of mankind.*

Mr. Hey seems, in this paper, to have assumed the following positions:—

"1. That a female received the venereal infection in the angles of the lips from a woman whose breasts she had drawn, who was supposed to be in a diseased state; and that this female communicated lues venerea to several other women by drawing their breasts.

"2. That syphilis, in its secondary form, may be communicated by the mother to the fœtus in utero.

"3. That the fœtus may be contaminated when the mother has never been previously affected with lues venerea in the organs of generation, and where no apparent disease existed in the father at the time of impregnation.

"4. That the mother remaining in health, shall produce several children, each of which shall in succession become affected with syphilis a few weeks after its birth; and that the disease shall assume a milder form in each child, comparatively, until it be finally worn out.

"5. that where a man has been infected by the venereal disease during his single state, and treated for it so successfully previously to his marriage, that no symptom, primary or secondary, appeared subsequently; he shall, nevertheless, be in a capacity of communicating the venereal disease to the woman he marries, and she to her offspring.

"6. That the same man, being free from all apparent disease, and remaining so, and having been the occasion of local venereal symptoms affecting the organs of generation of his wife, shall nevertheless continue to cohabit with her without receiving any new injury." 48.

Having now presented our readers with Mr. Hey's ideas, we turn to Mr. Pearson's remarks in the Appendix.

In the first place, Mr. P. observes, that, the facts connected with the history of the blind woman, are not in sufficient number to warrant the conclusion, that the sores at the angles of her lips were venereal. The mere external characters of these sores do not authorize us to pronounce them to be syphilitic, in the absence of any history of the woman from whom she was supposed to have received the disease. The conclusion that they were venereal, seems to rest on the cure having been effected by mercury, as was those of the several women from whose breasts this female extracted milk.

"Now it is," says Mr. P. "an incontrovertible fact, that ulcers of the mouth, lips, or tongue, not syphilitic, may communicate a

* Page 46

disease by contact, to parts destitute of the common cuticle; that all these sores will resist different modes of treatment, and finally yield to the administration of mercury; and yet the evidence that the ulcers communicating the disease did not partake of the qualities of syphilis may be indisputable. Therefore, unless it can be shown that no other kind of pus, or puriform fluid, formed upon the surface of a secreting membrane, or upon the surface of an ulcer in the substance of a part, can excite the process of ulceration when applied to a sound part which is not covered with the epidermis, the inference deduced from the simple fact of the transmission of disease from one subject to another, will not be duly substantiated." 61.

In the second place, observes Mr. P. a pregnant woman, affected with lues venerea, may contaminate the fœtus in utero, and the child born under these circumstances will be frequently found dead at birth. If living, from two to four or five weeks will commonly elapse before symptoms of syphilis appear. "It may be doubted whether an infant was ever born alive with the indubitable characters of lues venerea upon its body."

"If a woman," says Mr. P. "suffer from the secondary symptoms of syphilis during her pregnancy, the power of communicating the disease to her child cannot be influenced by the mode in which she received the infection, nor by the part to which the contagious matter was first applied. Neither will the cure of the woman by mercury, during utero-gestation, protect the fœtus from the agency of the venereal poison." 62.

Mr. Hey asserts that he has seen this extraordinary mode of conveying syphilis "in several instances." The annotator does not deny the assertion of Mr. Hey; his language, in some places, is calculated to lead to the conclusion that he has some doubt in the stafement, but this is not the case. "It may be asserted, he observes, that such an order and method of transmitting syphilis from the mother to her offspring, is [are] not accordant with any known regular laws connected with the human constitution—neither has it the support of any well-established analogy." This defect of proof, however, he remarks, may be owing either to inattention, or to the very rare occurrence of the malady under so peculiar a conjunction of circumstances. It is doubtless true, as Mr. Pearson observes, that pathological science is still in a very imperfect state, and that "the history of diseases which admit of cure by the natural unassisted powers of restitution in the system, is an important desideratum which yet remains to be supplied." In support of a fact, the dissimilitude of which to the ordinary procedure of Nature Mr. Pearson is ready to acknowledge, he asserts that he has seen several in-

stances, in which the newly married woman has had appearances bearing a strong resemblance to the primary symptoms of lues venerea, whose husband had no apparent disorder, local or constitutional, at the period of marriage nor subsequently, at the very time when his wife was suffering from the local malady.

"Every common precaution to avoid deception, and verify the statement, was used in these cases; but nothing could be collected that had a tendency to falsify the declarations of either party. It may be very properly inquired, Whether the assertor of this fact ever witnessed such an occurrence, where neither of the persons had previously suffered from venereal contamination? He replies in the negative;*—but the advantage which it may be supposed that this concession gives to an opponent, will be considerably diminished by the consideration, that the party which had formerly suffered, had no symptom of disease when he was supposed to have communicated it; that no subsequent appearance of disease occurred; and that no medicines were given to secure the person against the possibility of future inconvenience." 67.

At the same time, it is to be remembered that instances of the kind under consideration are very rare—that very few men inhabiting the large towns of Europe marry without having suffered from illicit intercourse—that a vast plurality of the women then married are consequently exposed to the hazard of receiving injury, and yet escape contamination—all these things considered, it seems warrantable to conclude that this morbid appearance only occurs in situations and conditions peculiar, and not yet defined.

Mr. Hey urges the curing of these diseases by mercury as a farther evidence of this syphilitic character, adducing the authority of Mr. Hunter. Mr. Pearson's remarks on this part of the subject we shall give in his own words.

"1. That mercury is a specific remedy for syphilis may be safely admitted; yet mercury, instead of curing some diseases consequent on impure cohabitation, and especially those which resemble the chancre, will be often highly injurious to them, whether applied locally, or received into the system. Will it be asserted that these cases therefore are not venereal? But suppose that any one of these patients, and the supposition is founded on facts, after the healing of the sore without mercury, shall be infected with the secondary symptoms of lues venerea, and these symptoms shall yield to mercury; are we to conclude that the disease was origi-

* "He believes that he has seen one case, in which neither of the parties had incurred any sexual intercourse before marriage."

nally venereal? If so, then mercury may exasperate the primary symptoms of such a disease, and cure its secondary symptoms. Hence the conclusion drawn from the operation of mercury ceases, under some circumstances, to be a certain test of the presence, or absence, of syphilis.

"2. Mr. Hunter considered the gonorrhœa as one form of lues venerea; yet he was aware that the gonorrhœa often admits of a natural cure. He could not, consequently, intend to affirm, that in every venereal case, without limitation or restriction, the introduction of mercury into the system was indispensably necessary to its cure.

"3. To bear a resemblance to syphilis is an ambiguous phrase; since it may mean that some one or more of the appearances resemble those which occur in syphilis; or that the origin, progress, and order of succession of the symptoms coincide exactly with those derived from the venereal poison. Now it is a remarkable and an important fact, that no one symptom derived from syphilis is peculiar to that disease; a resemblance in the evolution and mode of conjunction of the several morbid appearances is, therefore, necessary to verify and establish the identity of the morbific poisons.

"4. The evidence arising from the salutary effects of mercury in subduing the disease might be admitted as valid, if mercury cured no other malady. But as this medicine may be employed successfully in removing many cutaneous disorders, the proof fails in a most material point, and carries little or no conviction of the correctness of the inference. Indeed, when the disease 'yields to no other remedy,' and is cured by mercury; this affords a fair presumption in favour of Mr. Hey's opinion, and the evidence is strengthened, if the concurrence of symptoms resemble those of lues venerea; yet, the proof is incomplete while a discordance can be shown between the cases in question, and the usual course of syphilis; and more especially if it can be shown that similar appearances occur, when nothing like a venereal taint had ever infested the mother. If the validity of 'Mr. Hunter's argumentation' be conceded; yet the converse of that is not to be admitted, as equally valid. He who firmly believes that syphilis is curable by mercury only, may conclude with Mr. Hey that a given case, which has been cured without mercury, was not venereal; but since mercury may be administered with success in diseases not venereal, there is a manifest imparity between Mr. Hey's reasoning and that of Mr. Hunter.

"5. The instance of the gentleman, who, being free from any ailment, was supposed to have communicated the primary symptoms of syphilis to his wife, presents a fact not easily to be conceived, and which is still more difficult of explanation. Yet, several cases of a similar kind have fallen under the writer's observation, and what is remarkable, they have occurred more frequently where the gentleman had been infected with gonorrhœa only, and was cured previously to marriage, than when he had suffered from

chancre. Some of these females had local symptoms only; in others, these were succeeded by constitutional symptoms; and in some the malady first manifested itself by the appearance of an ulcerated throat and copper-coloured spots upon those parts of the body which are most commonly infested by venereal eruptions. But, further; symptoms bearing a great resemblance to syphilis may arise spontaneously and under circumstances where no sexual intercourse shall have occurred during many months; they may even appear after mechanical injuries received on the organs of generation, or after the application of acrid substances to those parts, and the primary sore may be succeeded by ulceration of the tonsils and copper-coloured spots on the body. These assertions are made in full confidence of the accuracy with which the observations were made. That duly verified facts like the preceding surround the subject with many difficulties, and tend to introduce a considerable measure of skepticism into the reasonings and decisions of professional men, is neither denied nor dissembled. To elucidate many conflicting facts which present themselves, no ordinary powers of discrimination may be sufficient; since the object of inquiry is sometimes enveloped in a darkness which can hardly be dispersed by talents the most brilliant; or it is involved in perplexities which refuse to be disentangled by any means short of multiplied observations, the most patient thought, well-contrived experiments, and transcendent sagacity. It may be the happy lot of some favoured mortals to keep the tenor of their way undisturbed by doubts or perplexities; and to such, he who discloses difficulties in their path or his own, must be an object of pity, wonder, or annoyance. But doubt in medical matters is generally less dangerous than presumptuous confidence; and if suspension of mind control rashness, it is not inimical to practical utility. The consciousness of an inability to explain, unfold, and elucidate a pathological problem is perfectly consistent with such a measure of knowledge as is quite sufficient for human utility, and which will conduct to a very safe and successful mode of treatment." 76.

With the above extract we shall take leave of this subject, which is involved in difficulties apparently insurmountable at the present moment. Time will probably cut rather than loose the Gordian knot by erasing syphilis altogether from the nosological chart of diseases. There was a period when it existed not—and why should there not arrive such a period again?

A short paper closes this part of Mr. Pearson's work, containing a reply to some observations by Mr. Todd of Dublin, on a paper of the late Mr. Hey's, respecting an uncommon species of scrotal hernia. But as this paper is controversial, and accompanied by an explanatory plate, we cannot attempt to give any account of it in this place.

VII.

I. *Transactions of the Phrenological Society, instituted 22d of February*, 1820. Octavo, pp. 448, with five engravings. Edinburgh, 1824.

II. *Phrenological Journal, 2d December*, 1823. 8vo. pp. 184.

We took the liberty of directing the attention of our readers to the subject of Phrenology in our number for last March. Neither become the disciples of Gall and Spurzheim, nor professing hostility to their doctrine, we felt it impossible to abstain any longer from mentioning in our pages a subject which seemed to be gaining considerable ground in this country, of the truth of which many men of excellent understanding did not hesitate to declare themselves fully convinced, in support of which books of no little merit were appearing, and, above all, for the cultivation of which a society was actually established in Edinburgh and in America.

The former society has now sent forth into the world a volume of its Transactions, containing no fewer than 448 closely printed octavo pages; and we now purpose to lay its contents before our readers. No apology can be required. The omission would be a gross dereliction of duty. After the heavy fire which was opened upon phrenology a few years ago, it might well have been supposed completely demolished. But, no. When the smoke had rolled off, and the scene again become light, no desolation was discernible; there stood Phrenology, in all her original brightness, not a hair of her head injured, whole and undaunted; and more than this, a band of doughty champions were found to have silently collected around her. The number of these has continued to increase. The Society of Edinburgh consists of 86 members. Of these, nineteen appear, from having their names only announced, to be private gentlemen, and Sir George M'Kenzie, Bart. is at their head; nineteen are in the law; thirteen physicians; eleven surgeons; four ministers of the Scotch kirk; two colonels; three captains; five artists; the rest are civil engineers, bankers, merchants, booksellers, accomptants, and schoolmasters. There are members of both Oxford and Cambridge, fellows of the Royal Society of both London and Edinburgh, physicians and surgeons of great medical establishments, a professor of the University of Transylvania, and another of Berlin.

Men of such various situations and habits, for the most part necessarily of cultivated understanding, and accustomed both to reflection and independence of thought, all associated for the promotion of an object unconnected with religion or politics, (on either of which the wisest will grow extravagant)

and having no possible interest to serve, cannot but be supposed to have at least plausible reasons for their conviction; and we shall therefore be at some pains to present a faithful sketch of each paper in the volume.

The first is a *Preliminary Dissertation on the Progress and Application of Phrenology*, by Mr. George Combe, the well-known author of the Phrenological Essays. A short biographical notice is given of Drs. Gall and Spurzheim, and the mode in which the discovery of phrenology was made, is fully pointed out. It has been very incorrectly asserted, that the scheme of faculties in their system was drawn out by fancy, and the head afterward divided into compartments corresponding with the list. Now the truth is, that Dr. Gall made his discoveries by noticing particular talents and dispositions to be of great strength in certain individuals, and particular parts of the head to be proportionally large. He thus discovered faculty after faculty, without knowing what was to come next.

"The method of inquiry pursued by Dr. Gall, having for its object the discovery of the relation betwixt the mental powers and their organs, possessed advantages peculiar to itself, and was free from the objections to which the methods of the physiologists and metaphysicians were liable. He attended to facts presented to his senses and understanding, and was thus led to a knowledge of a relation existing in nature, betwixt particular portions of the brain, and particular faculties of the mind. However short, therefore, of complete success, his inquiries may appear to some at present to be, it is indisputable that his followers are in the road which leads to truth. His mode of philosophizing has nothing in common with the formation of an hypothesis; and so far from a disposition to invent a theory being conspicuous, there appears, in the disjointed items of information which he at first presented to the public, a want of even an ordinary regard for systematic arrangement. His only object seems to have been, to furnish a candid and uncoloured statement of the facts in nature, which he observed; leaving their value to be ascertained by time and farther investigation." "But what followed? As soon as observation had brought to light the great body of the facts, and the functions of the faculties had been contemplated with a philosophical eye, a system of the philosophy of the human mind presented itself, almost spontaneously, to view, (in the words of Mr. Abernethy) 'not like others presented to us, which appear in comparison but as mere diagrams, the result of study and imagination; whilst this seems like a portrait from life by masterly hands.' When the work of discovery had proceeded a certain length, the facts appeared to be connected by relations which it was impossible sooner to perceive; and system and arrangement at length suggested themselves where disorder only had previously reigned. Hence it was not till after phrenology had been cultivated for several years, that its real nature and utility were discovered, and it was only then that its

form became systematic. Hence, also, its character and its name changed as it proceeded; and from a mere species of physiognomy, it has become a science capable of the most useful and interesting applications. If, from the beginning, the discoveries of Drs. Gall and Spurzheim had assumed the aspect of a regular and polished science, and been moulded into complete accordance with the prevailing doctrines of the times, it would have been clear that they were theorizing: for a beautiful and perfect system could not arise at once out of the observation of facts. The history of discovery in chymistry and the other experimental sciences, shows that facts in nature may, for a time, appear, not only isolated and uninteresting, but absolutely inconsistent and perplexing, until future discoveries shall have linked them into the chain of connexion, and exhibited them in all the beauty and importance of essential parts in a system of truth. The very fact, therefore, that out of this mass of incoherence and apparent inconsistency, there has at last arisen a system of philosophy deserving of admiration, creates a strong presumption that it is founded in nature."

The advantages which must accrue to the philosophy of the human mind from phrenology are next stated, and the origin of the Edinburgh Phrenological Society is detailed, and the paper concludes with some observations on the nature of the evidence upon which phrenology rests.

"The proposition, that a certain mental power is connected, by nature, with a certain portion of the brain, relates to physical science, and can be proved or disproved only by observation. The province of reason, in such a case, is to compare the phenomena observed, to discover their relations, and to draw from them just conclusions; but not to determine, beforehand, whether the appearances alleged can, or cannot, exist in nature. Those persons, therefore, who attack the doctrines by mere arguments, whether founded on analogy or on previous opinions, only render complicated a question which in itself is simple; for if the facts alleged by the phrenologists really exist, all reasonings which go to contradict them must, of necessity, be defective in premises, or unsound in deduction; and if they do not exist, the whole fabric of the system will fall to the ground, without the aid of any other objection.

"The next consideration is the mode of bringing forward the evidence by which the science is supported.

"Delicacy to individuals stands opposed to the public statement of many interesting cases in favour of the doctrines. For my own part, I have been permitted minutely to examine the heads of several hundred persons, in different ranks of life, many of whom were well known by their talents as authors, preachers, public speakers, artists, &c. and the correspondence between their mental qualities and cerebral developement was such as carried irresistible conviction to my own mind, that phrenology is a correct exposition of nature; but the confidence implied in permitting the examination imposes a restraint upon publication of the results,

which no consideration will authorize me to disregard. It is on this account that phrenologists eagerly solicit those who wish to ascertain the truth of the system, to examine nature for their own satisfaction. Busts are sold, which indicate the situation of the organs, and books which describe their functions; and no one can have any difficulty in finding proper subjects for examination among individuals in his own circle, with whose talents and dispositions he is intimately acquainted. If, for example, two children are known, one of whom is extremely kind, and the other rash and precipitate, their heads may be placed in juxtaposition, and their organs of cautiousness compared. The difference will be found so striking, that the most inexperienced observer may recognise it. In like manner, if, of two girls, one be particularly fond of admiration, and another be indifferent about her appearance, and regardless of the opinions of others, they may be placed in a similar situation, and a very palpable difference in their organs of love of approbation will be perceived. The degree of conviction resulting from observations of this kind, when repeated on a great variety of individuals, and in every diversity of circumstances, far surpasses that which can be produced by perusal of the most minute and authentic details of cases observed by others. By contemplating phenomena as they actually exist, the mind forms a judgment concerning the real nature of their relation to each other with a higher degree of certainty and satisfaction, than can be obtained by merely reading descriptions of their appearance, and of the order in which they occurred. In the former case, the inquirer satisfies himself by an examination of *all* the circumstances which he deems of importance; in the latter he is apt to doubt that some material fact may have been overlooked, which, if stated, would alter the whole import of the experiment. These remarks are particularly applicable to phrenological investigations. By selecting for observation persons intimately known to himself, the inquirer will enjoy the means of estimating the real nature and extent of the talents and dispositions possessed, the actual appearance of the head, the effects of health, education, and of a variety of circumstances which he might imagine were not attended to in investigations conducted by others.

"The same restraints, however, do not oppose the publication of all cases bearing on the truth of phrenology. When individuals have rendered themselves conspicuous by their virtues or vices, by their talents or deficiencies of understanding, and when casts of their heads have, by their own consent, been placed in the hands of the public, or been properly acquired, there appears to be no impropriety in discussing openly the correspondence or discrepancy betwixt their cerebral developement, and the known manifestations of their minds."

"Farther, when individuals have perished on the scaffold, and the Society has preserved authentic casts of their heads or skulls; there can be no impropriety in discussing, in the freest manner, the correspondence betwixt their mental manifestations and the developement of their brains."

The second paper is entitled *Outlines of Phrenology*, and contains nothing new, but seems inserted for the purpose of affording a tolerable acquaintance with phrenology to any person, however uninformed upon the subject, who may happen to take up the book, and wish to understand its contents. A plate is appended containing four views of the head, with the organs delineated.

The third, by Dr. Poole, is *A View of some of Dr. Spurzheim's Lectures, as delivered at Edinburgh in the Winter of* 1816. Like the former it contains nothing new, but it is probably inserted with the same object, and discusses some general questions. The account of the course opens in the following manner.

"Dr. Spurzheim commenced by apologizing for his faulty pronunciation and imperfect knowledge of the language in which he was about to deliver himself, and expressing his trust in the indulgent consideration of his hearers. But there seemed to be fewer demands on their favour or patience than he gave reasons for applauding him. Without the aid of notes, which a thorough acquaintance with his subject, and the habit of public speaking, had rendered unnecessary, he never failed to express himself in clear and forcible terms, free from embarrassment or affectation; and with the happy, but unassuming firmness of a man who believed that the importance and the truth of his discoveries formed a sufficient claim to attentive regard, and would redeem those trivial and adventitious errors which he might happen to commit in declaring them. His illustrations were copious and striking, the product of a mind matured in useful learning; but still more indebted to the long and varied exercise of native discernment on the concerns and characters of mankind. This gave peculiar value to his remarks, in the judgments of persons who had learned to distrust the theories of the schools, and to wait with some degree of patience, till an enlarged and well-arranged series of facts should warrant a degree of confidence in the opinions which he delivered. 'Do not,' said he, 'believe any thing because I affirm it; nor, on the other hand, object to it merely because others have done so before. I may err, and others may err, but Nature is always true and constant. See and judge of her for yourselves.' In the same spirit, and with the same propriety, he distinguished between the facts which he meant to bring forward, as at all events deserving to be held important in the study of the human character and constitution, and those inferences which he or others had drawn from them. The former, he affirmed, *must* be admitted, and, accordingly, in regard to them, both he and his hearers were bound to identity of belief. But, with respect to the latter, especially in the present infancy of the science, some difference of sentiment might reasonably be anticipated, and certainly ought to be regarded without the admixture of angry passion, or a disposition to unprofitable cavilling."

We are then informed of the object of the science.

" The object of the science is not what it has often been asserted to be. No investigation into the *nature* of mind is even so much as attempted in it. We know no more of mind, as it is in itself, than we know of matter; and, accordingly, we must content ourselves with observations upon the properties of the one, and the manifestations of the other, as presented through the medium of our bodily organs. No argument, it is evident, is thence to be drawn as to the materiality of the mind. Such a question is never once agitated in the system; far less does the system afford any thing like an approach to the affirmative, as has sometimes, most erroneously, been imagined. The doctrine, it is acknowledged, may be abused; but in this respect, it does not differ from any other science, nor from any of the gifts of nature, all of which may be, and most of which have been productive of evil, through the depravity or the weakness of mankind.

" The object of the system, then, is the manifestation of the human mind, as dependent on, or connected with, organization. This dependence is assumed as essential, not to the existence, but to the manifestation of the mind, for we have no example of the operations or agency of the one, without the instrumentality of the other."

Several propositions are then stated. First, That the brain is allotted as the organ of the mind,—" that without it no manifestation of mind has ever yet been known." Secondly, That a certain quantity of brain is required for the manifestation of the mind. Thirdly, That, *cæteris paribus*, the manifestations of the mind bear a proportion to the size of the brain; it being clearly asserted, that size is only *one* of the conditions on which the manifestations depend; for all will perceive, that the consistency of the brain, the temperament of the constitution, the degree of exercise of the talents, and other circumstances are likely to obtain a certain influence. Thus, although men remarkable for the versatility and general scope of their genius, have universally large brains, as in the familiar instance of Lord Bacon, and have the organs so developed as to give great fulness to the face and upper parts of the head, the converse is not maintained. We are reminded of Milton's description of the *fair large front* of our first parent; and of Shakspeare's expression, "*foreheads villanously low.*" The ridiculous doctrine of the affections being seated in the viscera of the chest and abdomen is then refuted. Bichat nowhere appears to so much disadvantage as when advocating this doctrine. The affections of the mind influence every part, and when the various viscera do not feel their influence, the affections must be powerless—he who has not bowels of mercy, has them not because he has no mercy in his soul; if the heart does not leap for joy, it does not, because the spirit is not enraptured. The cause is in the brain, the effect in the other parts.

The fourth proposition is, that the various parts of the brain perform various offices—that it consists of as many particular organs as there are primitive powers of mind. The arguments adduced in support of this proposition are, *first*, as Nature employs various means for various ends, and multiplies resources without limit, as occasion demands, organizing every plant suitably to its products, and every animal suitably to its circumstances and condition, and provides a particular organ for every animal function, and a distinct organ for each of the five senses, so analogy would lead us to presume that all the mental functions and powers are accommodated with separate and properly adjusted organs. *Secondly*, That as the faculties and propensities of animals differ, so we must suppose their brains will differ, and so they actually do. *Thirdly*, The same individual manifests some properties and powers in a high degree, while others are scarcely discoverable in him, though quite natural, or frequently belonging to his species: one, for instance, having an excellent memory for words, but unable to carry on a process of reasoning; another displaying a genius for painting, but insensible to the charms of music; a third, excelling, in mathematics, but devoid of all taste for poetry—facts apparently irreconcilable with the notion that one identical mass of brain presides over all the functions, but easily explicable on the supposition that the cerebral organs are as various as the functions. A precisely similar fact is the successive developement of the propensities and faculties. Lastly, the grand proof of the multiplicity of organs is the observation, that strength of faculty, sentiment, and propensity, is accompanied by fulness of the brain at certain points, and consequent fulness of the cranium at the corresponding parts. Several considerations connected with this fact, and absolutely necessary to be known, are fully described.

How satisfied phrenologists are that there is no evil in their doctrine, the following passage will show. The writer concludes an account of a conversation he once had with Dr. Spurzheim on the subject of Christianity in these words: "Of the character of Christ he spoke with enthusiastic admiration, as the only perfect man;" and subjoins, "may I be allowed to add, that the objection to phrenology, as founded on materialism, and leading to infidelity, seems to me one of the most irrational and unjust allegations ever brought against any science. In reality, the perfect, explicit, unqualified correspondence of the doctrines of the system, with those writings of the sacred Scriptures which relate to the character of man, is, to my mind, an incidental, but a powerful evidence of its truth, which, I confess, I have looked for in vain in the proud metaphysics of the schools."

To the fidelity of the following sketch of Dr. Spurzheim, we bear our humble testimony with pleasure.

"The vigour of his intellect refused no toil in the cause of science. The promptitude of his spirit and his zeal secured efficiency of judgment and patient inquiry on occasions which might have been thought trivial and unpromising by common observers. His serene, probably because his conscientious, reliance on the ultimate triumph of truth, supported him against the obstinacy of ignorance, and the malevolence of systematic error; and to these high endowments, so requisite to the character of a philosopher, especially when waging war with established creeds, he added a simplicity and gentleness of manners, which did not fail to conciliate regard, where his reasoning and his extensive information were urged seemingly in vain."

The same serenity, the same patience of opposition, and eager but dispassionate desire of discovering and supporting truth, and appearance of genuine philanthrophy, we must say pervades all the papers in this volume, and we cannot do better than conclude with the following quotation.

"The prostitution of talents, which we have all of us had occasion to witness, in the opposition made to phrenology, and the frequent exposure of unhappy defects and bad habits, volunteered by some of its enemies, while they neither affect its foundation, nor ruffle the temper of its disciples, are productive of essential, but it must be allowed, very painful advantages; they furnish ample materials for the confirmation of its truth, and no less ample motives and opportunities for the exercise of that forbearance and compassion, which it is one of its excellencies imperatively to inculcate."

The fourth paper is by Mr. Scott, *on the Functions of Combativeness, Destructiveness, and Secretiveness—with illustrations of the Effects of different Degrees of their Endowment on the Character of Individuals.*

Our readers are no doubt aware that phrenologists divide the faculties or powers of the mind into three orders—those of intellect, sentiments, and propensities. Mr. Scott arranges the latter in three kinds—those which excite to action —those which restrain from it, and those which keep us in a permanent course of conduct—1. Amativeness, Combativeness, Destructiveness, Constructiveness, and Acquisitiveness: 2. Secretiveness and Cautiousness; 3. Philoprogenitiveness and Inhabitiveness or Concentrativeness. The first he compares to the *steam* in an engine, the second to *the condensers and safety valves*, and the third to the *fly* which keeps the motion equable and steady.

Combativeness is not confined to the act of fighting, but is a blind impulse delighting in opposition for its own sake, a restless spirit of contention without end or object, but, under

the direction of the higher powers, it gives boldness and force to the character, and enables these to act with energy and effect.

"While some individuals are so devoid of it as almost to run away from a Barbary hen, if her feathers turn back with any show of resistance, others are never so happy as when engaged in a vigorous contest."

Great arguers are well endowed with it, "and confute, change sides, and still confute." The Irish exhibit the beau ideal of combativeness; so natural is uproar to them, that a gentleman who understood them thoroughly, being asked how the people were disposed at the fair, replied that "all was peace and quiet, for he left them all fighting."

Destructiveness implies a desire not only of vanquishing our adversary, but of destroying him. The bloody games of the Romans illustrate this propensity.

"Were it not duly restrained, the earth would, as in the days before the flood, be indeed filled with violence; but it is restrained both by resistance from without, and by cautiousness, benevolence, and other superior sentiments within. It proceeds to the last extremity of murder, only when these restraints are too weak, or when they are overborne by a sudden excess of the destructive propensity, too strong to be resisted."

United with conscientiousness and benevolence, it never proceeds beyond virtuous indignation, and it is this faculty which appears to the writer to give the character its greatest energy and power.

The faculty of *secretiveness* is well described, and all its workings most ingeniously unfolded, and illustrated, like those of the two preceding, with great richness of quotation from the poets. But there is before us too much for us to indulge ourselves in any farther account, and we are not quite sure that the writer will be deemed equally satisfactory in discussing this faculty, as ingenious and elegant.

V. *On the Effects of Injuries of the Brain upon the Manifestations of the Mind.* By Mr. Andrew Combe.

We do not know that any greater nonsense has of late years been talked, than what we have heard from certain persons respecting the independence of the mind upon the brain. We are desired to believe that very large portions of the brain may be destroyed without the slightest impairment of the faculties; that all the brain, except about the bulk of an egg, may be destroyed, and the patient (if such he can be called) remain perfectly well, and a writer in a distinguished northern review, assured us, that he was never conscious of thinking with his head. He therefore, at any rate, could

not be offended at any one refusing to consider him a wise-head. In their eagerness to prove the distinctness of mind from matter, they seem to have forgotten that the *facts*, which they adduce, prove far too much—prove not merely, that the mind and brain are distinct, but that the mind is unconnected with the brain—that the state of the brain has not the smallest influence upon the manifestation of the mind. Others have not proceeded to this length, but contented themselves with asserting, that a part of the brain may be destroyed, and yet the person remain in full enjoyment of his intellectual faculties, and that every part has been destroyed without the least deficiency of the faculty, which, according to Gall and Spurzheim, is corresponding.

The writer of the present very able paper, urges that the cases quoted were related merely for surgical purposes, and that, consequently, the observations upon the state of the mind were made without care, and the statements in regard to it are most unsatisfactory. "The senses were retained to the last; all the faculties remained entire; there was no deficiency in any intellectual faculty; no single power of the mind was impaired:" such is the information afforded us. In truth, we are ashamed of the logic which infers the full possession of intellect and feelings, from the ability of a patient to recognise his friends and answer plain questions. It reminds us of similar accounts of individuals exhausted by disease or age, "retaining their faculties to the last," as though they could investigate an abstruse point, or conduct an affair that required great sagacity and prompt energy.

In the volume of the Medico-Chirurgical Transactions, just published, is an account of an infant that, to the dismay of the accoucheur, sucked, and cried, and kicked for some days after it came into the world, notwithstanding he had done his best to destroy it by breaking up the whole of the two hemispheres of the brain before it came to light, into a pultaceous mass, and removed at least four ounces. Had the little fellow not unluckily died at last of hæmorrhage, he would no doubt have been able to learn to talk French and Latin, and *sing* Rossini's airs as well as other people, and take lessons in fencing and dancing, as well as to kick.

But not only are the assertions chargeable with general carelessness and vagueness, but the persons who made these observations were unacquainted with the faculties according to the system of Gall and Spurzheim, and consequently incapable of knowing in what way, relatively to the system of these philosophers, the mind was affected: not knowing, for example, that there was a principle of cautiousness, they would not think of inquiring whether the person was less cautious than before the accident.

"Finding none of the faculties which he calls attention, perception, memory, or investigation at all impaired, he, with great confidence, concludes, that the part in question *cannot* be the organ of cautiousness, and so satisfied is he with his own reasoning, that he laughs at those who do not see its cogency as clearly as he does himself. On any other subject this mode of reasoning would be looked upon as proceeding from a very blamable and lamentable degree of ignorance, especially on the part of any one who comes forward uncalled for to the attack; but as directed against phrenology, it is looked upon by many as satisfactory, and philosophical in a high degree."

Further; without the knowledge of the situation, form, and direction of fibre of the several organs, of which the brain is composed, any observations must be imperfect. Now "nine-tenths of the cases that are quoted, occurred long before the organs were discovered, and the remaining tenth, I believe, were observed in ignorance of the discovery."

Still further; the organs are supposed to reside not merely at the surface of the brain, but to extend into its substance; the loss of a portion of brain may therefore be only the loss of an exterior portion of an organ.

The doubleness of the organs of the brain also explains how one side might be seriously injured, and yet the functions be carried on entirely by the other—as urine is often secreted in due abundance after the destruction of one kidney.

"It will be seen from an attentive perusal of the cases quoted, that not a single instance is to be found, in which the destruction of both organs occurred, while the alleged manifestations of the mind existed."

Be it also remembered, that not only all the organs are double, according to phrenologists, but that "the organs of the intellectual faculties constitute so small a portion of the brain, as to leave nearly two-thirds of the whole mass to be destroyed on *both* sides, without necessarily interfering with the intellect."

"It has never once been taken notice of by the opponents, that while they confine their attention to the state of the *intellectual faculties alone*, in all cases of wounded brain, the organs of these faculties in the new system, constitute not more than one-third of the whole cerebral mass. The other two-thirds constitute the organs of the sentiments and propensities, which are never inquired into, as not being conceived to have any thing to do with the brain."

With two exceptions, the remaining papers are all statements of facts illustrative of the doctrines of phrenology.

The first contains cases of deficiency in the power of perceiving colours. That some persons, whose sight is in all other respects excellent, cannot distinguish between certain colours.

is well known in medicine. In the 7th vol. of the Medico-Chirurgical Transactions, an example is related of a family in this predicament: one, who was in the navy, purchased a blue jacket and waistcoat, and red breeches *to match;* and his grandfather would mistake a cucumber for a lobster, and a piece of red sealing-wax for a leek. Phrenologists have fixed upon a certain portion of the eyebrow as the situation of the portion of brain in which resides the faculty of perceiving colours. Dr. Butter, of Plymouth, relates an example of the deficiency of this faculty, accompanied by a remarkable flatness of the orbitary ridge, in the spot assigned to the organ of colour. Another example, attended by a small developement of the organ of colour, is, also, given by Mr. George Combe. The subject of this relation, Mr. Milne of Edinburgh, was placed in the Society, by the side of Mr. Gibson, a miniature painter, in whom the faculty was strong and the organ fully developed. A handkerchief was placed over the face of each, and more than half a dozen gentlemen, strangers to both Mr. Milne and Mr. Gibson, named them respectively and correctly, by feeling their heads at the part indicated. Mr. Combe mentions a third coincidence of deficient power and organic developement in Mr. Sloane of Leith.

A case is subjoined by Mr. Combe, of defective power in recollecting landscape, attended by a small developement of the organ of *size;* while, in another person, possessed of the faculty in great strength, this organ was fully developed: and, on comparing their heads, the greatest difference which was discoverable, existed between these two organs. This is an admirable method of learning the office of parts: by placing two individuals of great diversity in the degree of any one power, side by side, a great discrepancy in the proper organ of the power cannot but be detected.

The sixth paper, is a "*Notice of a Case in which the Patient suddenly forgot the Use of spoken and written Languages,*" by Mr. Alexander Hood. Among extraordinary cases of mental affection, none are more striking than those of persons whose intellect has been in all respects sound, except that they forget words and the meaning of them. This is an instance of that kind, and its importance arises from the circumstance of the disease having appeared to attack the part which is called, by phrenologists, the organ of language, for the patient had been subject to severe headachs, always referrible to the sockets of the eyes and to the eyebrows.

The seventh is entitled, "*Remarks on the Cerebral Developement of King Robert Bruce, compared with his Character as*

*appearing from History,** by Mr. William Scott. How phrenologists got a sight of the undoubted head of Bruce, we have no room to tell; nor to do any thing like justice to this masterly and beautiful paper. We believe our best plan will be to copy the statement of his majesty's developement.

1. Amativeness—full.
2. Philoprogenitiveness—large.
3. Concentrativeness—rather full.
4. Adhesiveness—large.
5. Combativeness—large.
6. Destructiveness—large.
7. Constructiveness—rather small.
8. Acquisitiveness—moderate.
9. Secretiveness—very large.
10. Self-esteem—rather large.
11. Love of approbation—large.
12. Cautiousness—large.
13. Benevolence—rather small.
14. Veneration—large.
15. Hope—large.
16. Ideality—moderate.
17. Conscientiousness—small.
18. Firmness—very large.
19. Individuality, lower—large.
——————— upper—full.
20. Form—large.
21. Size—large.
22. Weight—uncertain.
23. Colouring—moderate.
24. Order—moderate.
25. Time—uncertain.
26. Number—uncertain.
27. Tune—moderate.
28. Language—uncertain.
29. Comparison—moderate.
30. Causality—moderate.
31. Wit—rather small.
32. Imitation—moderate.
33. Wonder—moderate.

The character of this developement is one of great energy and power. From the full endowment of amativeness, philoprogenitiveness and adhesiveness, the subject must have been a kind husband and father, and disposed to enjoy the pleasures of friendship and domestic life. The large combativeness and destructiveness indicate warmth of temper and prowess in battle. Bruce's cautiousness and secretiveness appeared in the general prudence of his measures, and his frequent employment of stratagem in attacking his enemies. His full share of self-esteem and love of approbation, joined to some portion of ideality, account for his high spirit of chivalry and his love of glory. His large firmness and hope were evinced in his perseverance in exertion, and his patience in distress. The latter was so remarkable, that Boece thinks, it could only have "cummin by miracle and grace of God."

Owing to his moderate acquisitiveness, we nowhere find him guilty of any mean or sordid action: of his veneration, he gave many unquestionable proofs, in the regard which he paid to the religion, and even the superstitions, of his time; and the last act of his life, was to order his heart to be conveyed to the Holy Land. His reflecting faculties were but poor, but in the times in which he flourished, and the situation which he held, the intellect of a Bacon would have served him in little stead. The age was barbarous; the Scots lived upon flesh in a half raw state, merely sodden in skins, and wore buskins of untanned leather; they were not superior to the Cossacks of our day. The duties of a monarch were little

more than "to go in and out before the people, and to fight their battles." The developement of his sentiments and propensities, with his large individuality, which must have given him a quick observation and a tenacious memory, fully account for his renown. The events of his life are all sketched out, and his conduct proved to be in perfect uniformity with his phrenological character.

The eighth paper is a "*Report upon the Case of Miss Clara Fisher,*" by Mr. George Combe. The extraordinary mental powers of this young female are well known. Her head is of prodigious size relatively to her age and stature. Phrenologists affirm that a small head never possesses energy. To represent a character well, it is indispensable that the actor possess a high endowment of those powers or feelings which distinguish the character. An actor possessing little combativeness and destructiveness, could not personate the fiery Coriolanus with effect. Hence, to constitute an accomplished actor, capable of sustaining a variety of parts, a general full endowment of the mental organs is required. *Imitation* is supposed to give the power of assuming character when the particular feelings enable us to enter into them; and secretiveness that of suppressing the natural character; and these two, perhaps aided by others, are regarded by Mr. Combe as general powers required in an actor. In regard to her excellent representation of Richard, Mr.C. says—

"The high and full forehead gives her the intellectual energy of that character. The immense love of approbation, firmness, and cautiousness, enable her to feel and to express the ambition, the determination, the coolness of the tyrant. The large secretiveness supplies the cunning; and the (very large) combativeness, and (full) destructiveness, the fire, and also the genuine obduracy of sentiments so characteristic of Richard; while ideality throws the colouring of poetry over the whole representation."

The ninth paper is the "*Case of J. G. aged 10 years,*" by Mr. David Bridges, Jun.

J. G. was a lad picked up starving in the highway by a benevolent lady. His head was shown to Mr. George Combe without any intimation of his character or circumstances. Among other things, Mr. Combe reported that the organs of language, comparison, and wit, were full; of size, imitation, and ideality large; and of form and causality very large: that the organ of combativeness and acquisitiveness were full, of destructiveness large, and of cautiousness and secretiveness very large, while that of conscientiousness was small. He therefore stated, as his inferences, "that the boy would show uncommon penetration and considerable scope of mind:"

and as the weakest organ in the whole head was that of conscientiousness, while secretiveness was very large, there would be "a tendency to duplicity and finesse;" also, "that from his acquisitiveness being full, his honesty might be questionable; and that from combativeness being full and destructiveness large, and love of approbation moderate, the dispositions would probably be low and grovelling, and the temper hot.

Captain Davidson, who had taken the boy to Mr. Combe, then mentioned that the boy—

"Pretended he came from Glasgow, but that he was such a complete liar, thief, and swindler, that it was impossible to discover what his true history was; that he preferred sleeping in a dogkennel or out-house, skulking like a fox, to sleeping in a comfortable bed in the dwelling-house; that he appeared and disappeared nobody knew how, and even kind treatment did not render him social."

Mr. Combe gave Captain Davidson a note of the developement, with some observations which concluded thus:—

"This subject is a fair one for education to do its utmost upon. Nature has given faculties susceptible of education, and she has left great wants to be supplied. If left to his natural tendencies, he will probably turn out a very first-rate swindler; if well educated he may get through life without crime, and even with credit for his intellectual powers; but he will, with difficulty, be made amiable, sincere, and worthy of confidence."

We have next a letter from Mr. David Waddell, the tutor in Mrs. Cockburn's family, giving an account of the lad's conduct during the time that gentleman had the care of the boy's education. Mr. Waddell "feels no hesitation in declaring, that the leading features of his character correspond, in the most striking manner, with the developement described in Mr. Combe's report.

The fellow pilfered every thing he could get at, opening trunks and drawers almost every day, and hiding the articles in his bed. His schemes were devised with a cunning, and executed with a caution, far beyond his years; and when he happened to be detected, he always absconded, and frequently eluded the keenest and strictest search.

The greatest pains were taken with him. It was intended to place him with Mr. James Milne, a brass-founder in Edinburgh, to learn the trade; and he was previously sent to a public school in Leith Wynd, and boarded with Mr. Retson, a person in the employment of Mr. Milne. A melancholy account of the boy's misconduct is given in a very long letter from Mr. Retson, and at last the boy decamped with his Sunday clothes, and eighteen-pence stolen from Mr. Retson's

pocket, and has never since been heard
argument, undoubtedly, of the truth a

The tenth paper is by Mr. Georg
ring *natural Dispositions and Talents*
Brain."

The custom of phrenologists to set dow
every particular organ of the heads sen
and to infer from the absolute and relat
lents and character of the individual, h
mere quackery, near akin to fortune-tel
that there is no quackery in the business
organs of intellect and moral sentimen
in size over those of the animal propen
powers do correspond with the dimensi
tendency of the mind will be strongest
tellectual pursuits, and feeblest, compar
animal desire. This inference is phil
empirical only to those who disbelieve
ples on which it is founded; and the
phical till he disproves the truth of the

Education, and all external circums
exert an immense influence upon the ch
the inferences from cerebral developen
tive of the native strength of the faculti
be liable to immense error.

"The answer to this remark is simple.
case ventures to predicate, from the mere d
more than simple natural talents and dispos
stance where a sketch, resembling that
been given, previous information has be
sphere of life, and education, of the indi
the conclusions have consisted of an es
these extensive causes operating upon and
of the original powers."

When, however, the natural disposi
very decided, as in Shakspeare, Burns,
predominate over, and even command
stances; and a phrenologist, on viewin
mighty ones, might predicate—

"Quite philosophically, that Shakspea
energy, an unbounded scope of fancy, and
observation; that Burns was gifted with m
and simple feeling; and that Buonaparte h
an endowment of prodigious energy, joined
and great intellectual power."

Where the organs of the animal pr
timents, and intellectual powers, exist

education and circumstances are the most operative, because individual powers may be cultivated into a comparatively high state of activity. But when there is a great deficiency, or great developement among the organs, education will have much ado in its efforts to raise those that are low, and depress those that are highly vigorous. In the former case the phrenologist would declare the great capability of the individual to take his character from circumstances, and would not draw his inferences till fully informed of these; while in the latter his inferences would be prompt and bold.

We are presented first with the developement and a sketch of the character of a deceased Baptist minister. The surgeon who attended him and knew his character thoroughly, bore testimony to the accuracy of the phrenologists. Some remarks follow, explaining how the inferences were drawn from the developement. Many organs act in opposition to each other, and it is by noting the relative as well as positive developement,—by calculating the opposition, co-operation, and compensation of the different organs, that the inferences must be deduced. A remarkable fact in this case was, that the organs of cautiousness were very large, and the gentleman was remarkable for his circumspection, till attacked by his disease, which lasted six years, when his character quite changed in this respect, and after death those parts of the brain which Gall calls the organs of prudence and circumspection, were found pulpy through disease.

We have next reports upon the developement of the heads of several criminals.

The first report is by Mr. Robert Buchanan, on the developement of James Gordon, executed at Dumfries, 6th June, 1821, for the murder of John Elliot, a pedlar boy. Gordon was a wandering Irishman, and, meeting with the poor boy, travelled with him a few days, and murdered him by striking his head with a clog bound round with iron, for the sake of his pedlar's box. After the trial, Gordon behaved very indecorously in court, when sentence was pronounced upon him; but, at his execution, he prayed for himself and his judges, and acknowledged the justice of his punishment. *Combativeness* was found full; *destructiveness* very large; *conscientiousness* small; *benevolence* moderate; and all the organs of intellect small. The developement of all the other organs is presented to the reader, and inferences drawn from the whole, by which it appears that the conduct of the unhappy man, throughout the business, perfectly coincided with his organization.

The second is on the case of John Bellingham, the assassin of Mr. Percival, by Sir George Stewart Mackenzie, Bart.

The circumstances of the assassina
well known. Bellingham was engag
tions, and, through the failure of a
connected, became unable to fulfil
formed, to a large amount, with r
threw him into prison. Being of a
fatuated imagination, he viewed his i
effect of his own imprudence, or as
of one of those calamities to which
as a gross injustice; and published
merchants, full of virulent invective
After regaining his liberty, he ente
extensive speculations, which involv
ties than before. Convinced, on th
had not to blame himself, and that
for his ideal injuries if he made them
Government again and again, and w
to restrain his turbulent proceedings
him apply to the British minister at
and after returning to England and r
edly told that Government could nc
he continued to urge his unreasonable
to every member of Parliament a let
the Transactions with the answers o
and one to the magistrate at Bow
which, no less than the idea of injur
from Government, proves the want
absolute insanity; as the police office
of office, interfere with His Majest
madly determined to murder some o
bers of Government, as though they
dividually or collectively, in such a
place and time for the deed, as no n
have thought of, and instantly that it
the fire and avowed it. He profess
sins, and often prayed fervently, bu
to believe he had done wrong in sh
George argues powerfully that Belli
considered a madman; and Dr. Spu
skull, without knowing whose it was
of a murderer.

The whole head was very small, a
the sides and occiput, the forehead
row,—showing deficient intellect an
statement of the organs mentions
small; (forehead slopes gradually;)
conscientiousness, small; *cautiousne*

large; *self-esteem*, large; *love of approbation*, full; *acquisitiveness*, large; *combativeness*, very large; *destructiveness*, very large.

"Probably there never was a developement and character more truly coincident than those of Bellingham. The weakness of his understanding is indicated, both by the smallness of the whole head, and by the small proportion of the forehead. It is obvious that his ideas of his own importance were high; while his *love of approbation* must have rendered him more liable to disappointment. His *acquisitiveness*, want of *benevolence*, and *self-esteem*, must have concentrated his whole thoughts in self. His *cautiousness* being moderate, he had little prudential feeling. His great courage and *firmness* led to his persevering and harassing complaints, which he could not, from want of intellect, perceive to be unreasonable; and his full organ of *hope*, indicates a strong excitement to perseverance. The very little conscientiousness he had, was confined entirely to his own case, and perverted. His very large organ of destructiveness, besides indicating a violent temper, and a disregard to the feelings of others, inspired him with an impatient activity, and led him to resolve upon the horrid deed which he committed. Whatever pity he might have expressed for the family of his victim, his pretensions to that feeling are flatly contradicted, by the pains he took to state that he did not repent of what he had done, as well as by the smallness of the organ of *benevolence*. On the whole, a case more favourable for phrenology can scarcely be imagined; and it is one, too, equally favourable for demonstrating how erroneous the law with respect to responsibility. To say with the Attorney-general in this case, that a man deficient in understanding, is, nevertheless, capable of distinguishing right from wrong, would be to say too much, without defining the limit beween sanity and insanity, and which, probably, is not to be discovered. A man, without much intellect, may indeed possess, according to phrenology, that feeling which prompts just actions, and gives an aversion to such as are unjust. But setting phrenological knowledge aside, the opinion of the Attorney-General may be considered tantamount to the assertion, that idiots are responsible for their actions, idiots being no other than human beings deficient in understanding. But the case of the wretched Bellingham was more deplorable than that of an idiot; for with a very deficient understanding, he had opposed to it all the lower propensities of human nature, in a high degree of activity."

Mr. George Combe furnishes the last report upon executed criminals,—observations on the cerebral developement and dispositions and talents of Mary Macinnes.

This woman was the keeper of a brothel in Edinburgh, where, in a scuffle that had begun during her absence, she stabbed a man, after taking a knife deliberately from a knife-case on the dresser, and before a syllable had been said to her, or any provocation offered by the party.

In the account of her developement we find *amativeness*, very large. *adhesiveness*, large; *combativeness*, enormously large; *destructiveness*, large; *secretiveness*, large; love of *approbation*, large; *benevolence*, *veneration*, and *hope*, full; *conscientiousness*. rather small, with a meagre developement of the intellectual organs.

"The organs of the lower propensities are here very largely developed, while those of the intellect and moral sentiments are proportionally deficient. Her education was very limited. She could read in some degree, and she attempted also to write; but her penmanship was very imperfect. Her *love of approbation* was so strong, that she pretended to those attainments in a higher degree than she really possessed them. The organ of the amative propensity is very large for a female. It is combined with a very large combativeness, which gives boldness to the character, and is not proportionally restrained by *conscientiousness*, in the reflecting powers; and this combination sufficiently accounts for the line of life which she adopted, followed up by the commission of the crime for which she suffered."

The organ of *destructiveness* is large, and the size of this and of the organ of combativeness correspond with her irritability. The murder was committed in a rage; she was universally allowed to be very passionate, and on the Monday before her execution, she evinced the most violent emotions of rage on being refused to see a person to whom she was attached. From the smallness of her benevolence and reflecting faculties, compared with destructiveness and combativeness, Mr. Combe explains why she at first viewed the murder with complacency, and never expressed any very keen remorse at it. Several curious circumstances correspond with the large size of the organ of *secretiveness*.

Her father's name was Macinnes, and he was a lime burner in Isla, but she persisted she was the daughter of an adjutant Mackinnon.

"Her sister visited her in jail, while under sentence of death, and in an agony of grief, entreated her to disabuse the public of this monstrous falsehood, and not to die with such a palpable and wicked *lie* on her lips; but Mary remained unmoved by her entreaties, and maintained her own story. The only indication that she ever gave of departing from it, was on her way to the scaffold. The Rev. Mr. Porteous then asked her, if she still adhered to her declaration respecting her parentage: she paused, made no answer, and changed the discourse to another topic. This, it may be observed, was equal to a confession of the falsehood of her statement; for while she anxiously reiterated the declarations of her innocence of the murder, it is not probable that she would have failed to support her former statement if it had been true, by a renewed assertion upon this point also. During her confinement she preserved the

most profound silence regarding the persons who had been connected with her in her previous life,"—and Mr. Thomson never recollected a prisoner making fewer confessions than she did.

On the other hand, *adhesiveness* and love of approbation were large, and *veneration*, *hope*, and *benevolence* full. Accordingly, it seems, she was an affectionate daughter, affording assistance to her parents, and visiting them from time to time: she kept them in ignorance, as to her occupation: She was kind to the sick poor of her neighbourhood. She was very superstitious, and looked for the royal pardon, founding her expectation on dreams and the imagined applications of the ladies of Edinburgh in her behalf. *Firmness* was largely developed, and the clergyman testifies that she evinced, at the time of execution, an extraordinary degree of fortitude. Her organs of the reflecting faculties were small, and the clergyman found it impossible by reasoning, illustration, or explanation, to give her any tolerably distinct apprehension of the Scripture doctrines: and he was satisfied that this arose not from defective education, but from natural deficency. Her strength of attachment was shown upon the scaffold. A person, whom she loved, had sent her a handkerchief, with his name in one corner, and half an orange, to eat at her execution, he having eaten the other half at the same hour, the preceding morning.

"She held the corner of the napkin in her mouth almost all the night preceding her execution, and even on the scaffold. When seated on the drop, the turnkey gave her the half orange. She took it out of his hand, and without the least symptom of fear, said, 'tell him (the object of her attachment) that I die perfectly satisfied that he has done all in his power for my life, and that I eat the orange as he desired me. May God bless him!' She seemed to forget eternity in the ardour of her attachment to earth!"

Mr. Combe concludes with a few general reflections upon the difference of the heads of such characters and of amiable persons. The Rev. Mr. M. whose developement and character were mentioned at the beginning of the paper, was the very reverse of poor Macinnes. In the words of Cowper.

> His mind was tempered happily, and mixed
> With such ingredients of good sense and taste
> Of what is excellent in man.

"How opposite is the character of Macinnes! on comparing the two heads, you will perceive, that *a great mass of the brain in the head of Macinnes lies behind the ear towards the base of the skull; that the forehead is low, and the coronal surface narrow. In the Rev. Mr. M. on the other hand, by far the larger portion of the brain is situate before the ear; the forehead possesses a full developement, and the coronal surface is highly expanded.* You are aware that the society possesses casts of nearly thirty murderers; and that in every

one of them, without a single exception, a large developement of the animal organs, in proportion to those of the intellect and moral sentiments is found. These casts and skulls of murderers have been collected from Paris, London, Nottingham, York, Dumfries, Glasgow, and Edinburgh, and the same type runs through the whole of them. On the other hand, the society possesses a variety of casts of the heads of virtuous individuals, and in all of them, an evident preponderance prevails in the developement of the moral and intellectual organs, as in the case of the Rev. Mr. M. These are facts at which the superficial may smile; but they give pause to the philosopher, and lead him to very serious contemplations."

The tenth paper is *On the Modes of Studying the Natural Dispositions and Instincts of the Lower Animals*, by Mr. Andrew Carmichael.

The plan is,

"To form four columns, under the name of the animal. In the first column to insert all the habits, &c. of the animal recorded. In the second, to reduce these to such of the thirty-three faculties of man, as they might most properly be ascribed to. In the third, to state whether the respective organs had been ascertained or not: and to leave the fourth for observations respecting the differences between the male and female, and for pointing out prominences supposed to be organs, the faculties of which have not yet been discovered."

The eleventh, is a *Phrenological Analysis of some of the Maxims of La Rochefaucault*, by Mr. George Combe. It is extremely good, but altogether insusceptible of a brief epitome.

The twelfth is by Mr. Andrew Combe, and entitled, *Observations on Dr. Barlcay's Objections to Phrenology.*

In his compilation of all the wisdom and absurdities that men have written upon life and mind, Dr. Barclay condemns phrenology as visionary, and the object of the present paper is to examine the arguments, for he advances no facts, upon which his unqualified judgment is pronounced. Mr. A. C. complains that Dr. Barclay assumes that the facts have no foundation, and then argues that the phrenological conclusions are inconsistent, not with fact, but with preconceived notions of his own, altogether foreign to the question.

Dr. B. asserts, that voluntary organs are not restricted to any specific modes of operation, and illustrates the assertion by the various acts which the hand can perform. The hand, Mr. A. C. truly replies, is not indeed restricted to specific *acts*, (it may do ten million things) but it is restricted to a specific mode of operation, namely, to muscular contraction and relaxation.

Dr. B. continues, "taking the hand, then, as a specimen of the works of nature and of animal structure, and thence, reasoning on the principles of analogy, with respect to the brain, ought we not to infer, that all the parts, of which it is composed, may also combine in a similar manner, and be concerned in every phenomenon which has been ascribed to it." To maintain this analogy, it is obvious that all the operations of the mind should be referrible to one principle, say to feeling or reflection, but not to two or more. In amputating a diseased limb from beneficence, or a sound limb from cruelty, the action of the muscles is the same, but the motives are opposite; and analogy, if correct, would lead us to infer, that the emotions of both cases were the same, and experienced by the same mental organs. Analogy, here, however, is against Dr. B. for there is as great difference between the feeling of benevolence and of cruelty, as between the sense of smell and of sound: and these have distinct organs.

Dr. B. next denies the existence of a plurality of organs in the brain, because no such things are observable, he says, on opening the head. The fact however, remains the same,—that strength of certain faculties and feelings is commensurate with the size of particular parts of the brain. Moreover, whatever Dr. B. may not be able to discover, it is very certain, that any one, who attends *minutely* to the appearance of the brain, may distinguish the anterior, middle, and posterior lobes of the brain, even if seen separately; may discover great differences among the convolutions; and see the organs of benevolence, &c. developed in various proportions. In proof of the differences observable in the brain, we present our readers with the following account.

"On 1st Dec. 1818, when engaged in the first course, which he gave after his return to Paris, a brain was handed to Dr. Spurzheim, during lecture, with a request that he would say what characteristic dispositions it indicated; and he would then be informed to whom it had belonged, and how far he was correct." The brain had considerably changed its shape from lying in a flat dish. "He desired his auditors to remark the size of the cerebellum, and the great developement of the posterior, and of part of the middle lobes of the brain, the convolutions of which were large and rounded, forming a contrast with the deficient size of the anterior lobes. The convolutions situated under the vertex, and towards the top of the head, belonging to the organs of *self-esteem* and *firmness* were also very large, while those of veneration and benevolence were small. These peculiarities were so well marked, that Dr. Spurzheim felt no difficulty in inferring from the large size of the cerebellum, that the individual would have des dispositions fortes à l'amour physique. From the large developement of the convolutions belonging to the lower propensities, common to men and animals, and from the small

endowment of intellect and moral sentiments or restraining powers. he inferred 'that his natural tendencies would not be towards virtue;' that he would be what is familiarly expressed in French by 'un mauvais sujet;' being a very comprehensive term for every variety of bad dispositions, and that 'he would be one to whom the law would be necessary as a guide;' but not knowing the circumstances in which he had been placed, he could not say what his actions might have been. At the conclusion of the lecture, a young man, an elève interne of the Hotel Dieu, came forward, and said that the brain was that of a suicide, who had died in that hospital, and that the dispositions inferred coincided perfectly with those manifested during life."

The man had been a soldier, and banished from Paris to Orleans, for a crime that he would never name, and for which he had been subjected to a peine infamante. From the news reaching Orleans, he got no business, and, suspecting his wife of having contributed to his banishment, he returned to Paris, resolved to kill her and then himself. In the attempt to do the former, he failed; and then plunged the knife deep into his own body, between the 7th and 8th ribs. During his stay at the Hotel Dieu, he showed the most determined obstinacy, abused every one, particularly his wife, and declared he should like to kill her. He tore away the dressings; opposed every prescription, and died. Dupuytren, in his clinical lectures, often laid great stress upon the mauvais moral of the man—that le malade s'impatientoit contre tous les remèdes, etoit très impèrieux, et donnoit un negatif directe aux prescriptions.

A person who has devoted but little attention to the appearance of the convolutions, may imagine that little difference is to be observed among them; but let any one examine a large number of brains with care, and he will discover very characteristic distinctions. He will find "that the anterior lobe of the brain uniformly presents convolutions different in appearance, direction, and size, from those of the middle lobe; while the latter, towards the coronal surface, uniformly presents convolutions differing in appearance and direction from those of the posterior lobe; and, *above all*, that the cerebellum, or organ of amativeness, is not only widely different in structure, but is separated by a strong membrane from all other organs, and can never be mistaken for any of them." "The careful inspection of a few brains will satisfy any one that such differences actually exist in the different parts of the brain, which, joined to the fact of the developement of no one of these parts bearing any relation whatever to the developement of others, would lead us to infer that each had a distinct function, even although we had not the analogy of other parts of the nervous system to support us.

The analogy alluded to, is the fact, which Mr. A. C. con-

siders proved by Mr. C. Bell and Magendie, of nerves, similar in appearance, performing perfectly distinct functions.

When Dr. Barclay objects that an anatomist, on seeing an ear, eye, &c. instantly names its nature, functions, and situation, but that no such thing is possible in regard to the imagined organs of the brain: Mr. C. replies, that "the use, &c. of these parts is *previously learnt by observation*, and that, if Dr. Barclay were shown an insulated branch of the fifth or ninth pair of nerves, for example, performing, as they are admitted to do, distinct functions, he would not easily say where it had been situated," how connected, or in what functions employed. As to the cerebellum, Dr. B. must be allowed by every one to be totally wrong: it can never be mistaken for any other cerebral organ; and if brains were as often seen as faces, there can be no doubt that the characteristic differences of its parts would long ago have been fully known.

Dr. Barclay next quizzes phrenologists for finding no organs at the base of the brain, but all upon the upper parts and sides, "where they can at all times be easily seen." Now, here is a proof that phrenologists ground their statements on fact—on what they observe only: had they fabricated their system, they would have announced it perfect at first,—they would, in all probability, have divided the *whole* brain into compartments, and the more concealed parts at the base would have answered their purpose the best, as giving the least opportunity for refutation. If no organs are yet stated to reside at the base, this is no argument that the assertions of phrenologists regarding other parts are false: the system may not be complete, but what is known, is not, *on that account*, the less true. In fact, we ourselves should not suppose that many organs of distinct faculties would ever be found there. The base is but a small portion, and many of its parts are obviously for mere connexion.

Dr. B. says, there is no visible part in the crown of the head, frontal bone, occiput, or temples, where organs do not present themselves, and that they avoid the central parts. Now, when Dr. B. wrote this, there was a blank left in all the plates and casts of the phrenological heads, marked by Dr. Spurzheim between Nos. 16 and 23; and Dr. Spurzheim always mentions, that he believes the organs are not confined to the surface, but extend from the pyramidal bundles of the medulla oblongata; and, as the ear is generally almost on a line with the upper part of the medulla oblongata, he proposes to estimate the length of a cerebral fibre, by drawing a line from the orifice of the ear to the circumference, in the direction of any particular organ. And if phrenologists had believed them to be confined to the surface, they might have

owned themselves ignorant of the use of the central parts, without thereby giving any one a right to impugn their observations regarding those at the surface. If Dr. B. is singularly unhappy in these reasonings, he becomes absolutely ludicrous, when he grumbles because the infundibulum and four ventricles are not admitted into the number of organs. When he receives thunders of applause from an empty class-room, he may expect the holes and cavities of the brain to perform the offices of material organs.

Our readers may think Dr. B. sufficiently good, without aiming at any thing more ridiculous: but, it appears, he thinks otherwise, and actually raises another objection to the plurality of organs in the brain, because no muscular action is assigned to them!! The next time he writes, he will probably find fault that the brain is not allowed a side-pocket. The belief of a plurality of cerebral organs cannot do away with the belief of muscularity, if the brain, considered as a single organ, is shown by Dr. B. to be muscular. The good doctor, from working so much upon muscles, seems to like nothing else—he would have

> Muscles in trees, muscles in running brooks,
> Muscles in stones, muscles in every thing.

The ostensible reason why he wishes phrenologists to give muscles to the brain is, that it may have instruments to execute its will. Now the brain has such instruments—all the muscles of the body, with the bones, ligaments, &c. are the ready ministers of its will—"where, says Dr. Barclay, are these corresponding executive organs? to this no answer has been given, &c. The state is not much to be envied, when there are more to advise than to listen, and more to command than are willing to obey, in all well-regulated fleets and armies, &c." There are not only some to listen, and some to obey, but more to listen and obey than to advise and command, precisely as in all well-regulated fleets and armies. Phrenologists have satisfied themselves at present of about thirty-four cerebral organs, and, besides the six organs for hearing, vision, smell, and taste, and the two hands for touch, and the whole body for feeling, all which are the mind's active informers, there are 220 *pairs* of muscles of voluntary motion, besides bones, ligaments, and cartilages, all obviously essential to the performance of any act prompted by the will. Dr. Barclay's string of objections is really most unhappy—sent un peu l'apoplexie. Mr. A. Combe then proceeds to show that a variety of phenomena of both health and disease are explicable on the supposition of a plurality of organs in the brain, but not upon that of the brain being a single organ. These are 1st, the *successive* development

of mental powers. The child is all alive to the existence, properties, and circumstances of surrounding objects: the adult is able to reason. In the child no sexual desire is felt: in the adult it forms a striking character of the mind. In truth, the brain experiences corresponding changes. The middle and lower parts of the forehead generally predominate in childhood, and the upper and lateral parts become more prominent in later life. We must confess that we have seen at Mr. Deville's, in the Strand, a striking example of the successive developement of the parts of the brain correspondently with the developement of the mind. There are two casts of a young man, one taken when he came of age, the other two years subsequently: the portion of head assigned to intellect —to causality and comparison, project in the second cast so much more than in the first, that no person can fail to detect the difference. Chaussier says, that the cerebellum (the supposed organ of sexual desire) forms $\frac{1}{12}$ of the encephalic mass in infancy; and from $\frac{1}{5}$ to $\frac{1}{4}$ of it in the adult. The growth of the whole brain, and the successive proportionate developement of its different parts for the first third of our existence, cannot be denied. Whatever certain foreign anatomists have asserted to the contrary, any one may satisfy himself of this, by taking a cast of a young person every year or two. We hope phrenologists will provide themselves with some sets of documents of this nature.

The 2d fact explicable only on the plurality of cerebral organs is the partial nature of genius: one person being endowed with one talent, a second with another, and possessing no excellence, perhaps being really deficient, in other respects. Were the brain a single organ, there could be no partial excellences.

3. The phenomena of dreaming, in which numerous emotions and numerous conceptions occur, succeeding each other without intellectual control. These harmonize with the notion of a variety of faculties and organs, some being active, and giving the ideas and feelings which constitute dreaming; while others are inactive which would control them and prevent the disorder that characterizes the fancies of sleep. If the organ of mind were single, dreaming could not occur; the faculties should be all asleep or awake at the same time.

4. Partial idiotcy and partial insanity afford very strong arguments in favour of the plurality of organs. Some idiots can calculate well; others can sketch accurately: lunatics are frequently insane on some topics only. Were the brain a single organ, there would be no partial deficiencies.

5. Partial injuries of the brain are the last fact mentioned. If the whole brain be concerned in every thought and feeling

it is wonderful that a portion can be lost or injured, and all the processes of mind manifested with *equal success* as in health. In good truth, these are not manifested as before; they are partially impaired, if both sides are injured,—some are injured—and this proves the plurality and diversity of cerebral organs.

Mr. A. C. concludes with exposing the inconsistency and absurdity of many of Dr. Barclay's remarks, and certainly has answered the doctor in so powerful, so clear, and withal in so respectful and gentlemanlike a manner, that Dr. Barclay's truest friends will advise him to say no more upon the subject.*

XIII. The last paper is "*On the Phrenology of Hindostan,*" by Dr. George Murray Patterson. This highly interesting paper contains, we must allow, powerful arguments of the truth of phrenology. The character of the Hindoos is totally dissimilar from that of Europeans, and is well ascertained. Their cerebral developement, we learn, is precisely correspondent, and the grounds of this assertion are an examination of not less than 3000 heads of the natives; and we need wonder no longer that a few Europeans manage a host of Hindoos.

The whole head is smaller, and size of brain is, *cæteris paribus*, a measure of mental energy. The developement of the anterior parts of the frontal bone, the region of the knowing faculties, is less full. The knowing faculties are, in fact, less active; but the organic developement, and the mental manifestation of individuality, number, and language, are the most considerable among these faculties. The Hindoo is very much alive to surrounding objects: he calculates single numbers quickly and correctly: his native language abounds in signs, which he easily remembers. The organs of *form*,

* We shall take this opportunity of noticing a strange objection of Dr. Barclay's to the use of the word *organization*. This, he says, signifies the circumstance or act of organizing; and the structure produced should be termed an organism. Now the plain answer is, that the word *organization* is universally employed in both senses—all persons, when speaking of the business of organizing, say the organization of such a body requires so and so; and likewise, when speaking of a body, &c. already organized, call it an organization; and they do this, borne out by analogy as well as prevalent custom. Formation signifies the act of forming, and the thing formed; production the act of producing, and the thing produced; preparation, a word in daily use with the anatomists, chymists, and apothecaries, signifies both the act of preparing and the thing that is prepared. We therefore trust that phrenologists and all physiologists will say organization whenever they think proper.

locality, and *time*, are weak: and when they wish to point our resemblances in form, they are obliged to assist their memory by keeping an object before their eyes; they have extreme difficulty in remembering where they have laid any thing, and are not addicted to travelling; their songs are destitute of melody, and are a mere monotony of recitation.

The organs of the reflecting faculties are small; but that of causality much smaller than the organ of comparison: they are fond of similitudes, but have no great power at pointing out differences. They are continually expressing surprise, so hard is it for them to account for any thing.

The organs of wit and imitation are small; they rarely laugh involuntarily, (the effect of wit in those who can taste it is irresistible laughter,) and few excel in mimicry. The organ of benevolence is small, and a Hindoo cannot easily be made to comprehend the meaning of a disinterested action; if you succeed he only considers the person who acts disinterestedly as a bura pag hul, a great ninny. The mildness of the Hindoo arises from the deficiency of the organs of combativeness and destructiveness.

The organ of veneration is very moderate, but larger in Brahmins, whose whole heads, we are told, (and the fact is very striking,) are better organized than in other casts.

Ideality is rather more than moderate, and their poetical effusions are highly florid and allegorical, though defective in moral sentiment.

The organs of self-esteem and love of approbation are very fully developed; and Mr. Hamilton says, that "there is scarcely a creature so wretched or so ignorant, but who, on this account, holds in the utmost contempt many persons in easy circumstances and respectable situations."

The organ of cautiousness is so uniformly very large, that the protuberance may be seen at a great distance; whence their natural timidity.

The organs of amativeness and philoprogenitiveness are large; the latter very large. Their swarms of children, polygamy, and frequent unnatural crimes, and extreme affection for their offspring, are well-known.

The organs of acquisitiveness and secretiveness are very large. Their lying, hypocritical, pilfering character is precisely what a phrenologist would expect.

The organs of constructiveness, combativeness, and destructiveness, are small.

In the division of Hindostan that has been subjected to the Mussulmans, the organization of the head is superior to that which is seen where the Hindoos remain in their purity. In provinces possessed by the British, and inhabited by many

Mussulmans the cerebral organization is so much inferior, and the manners so improved and civilized, that the Hindoos there seem a distinct variety of men. Cultivation and admixture of the English breeds will therefore do much for the people: the former only can be brought into full play, and its effects are slow, but they are certain.

We close our account of this volume by assuring our readers that it will make every phrenologist proud, that it will probably convert many unbelievers, and highly delight those who remain in their unbelief.

And here we thought our phrenological labours at an end, when, lo! there appears a more unexpected thing than a volume of Phrenological Transactions—positively the first number of a Phrenological Journal. We are not in the habit of giving an account of Journals, but on this extraordinary occasion we shall deviate from our habits, not however entering into much detail, because the book is cheap, and may be readily procured.

The object of the work is, of course, to communicate all phrenological discoveries and novelties, and news about phrenologists and phrenological societies. It professes, likewise, to defend the favourite science against all attacks and side hits of periodical publications; to try characters in novels and pomes, &c. on phrenological principles; and dissipate popular objections of all sorts. The introductory statement from which we gather this, contains a copious list of *railing* and *abuse*, *falsehoods* and *malignities*, *impertinencies* and *insolences*, *wretched jokes*, *indecencies*, *nastinesses* and *brutalities*, from Blackwood's Magazine, the Edinburgh Review, &c. as a specimen of their mode of holding out sinners to public contempt.

The first article is a very humorous petition from the metaphysicians to the most profound, impenetrable, and mysterious powers—chaos, night, and dulness—for the suppression of phrenology.

The second is an answer to recent attacks on phrenology, and complains that phrenologists are not opposed by a disproval of their facts, but that these are at once ridiculed without examination, and wit and cunning (if such names are deserved by their attempts) employed at once to sweep away the whole.

"This is exactly of a piece with the attempts made in the sixteenth century, and even later, to ridicule and reason down the Copernican system. The wits and reasoners of those days, when they set themselves in array against the observers of nature, disdain-

ed to proceed by the slow methods of observation and induction. They at once denounced the notion of the Earth's motion round its axis as contrary to *common sense*. But we do not now consider the doctrine of the earth's rotation to be contrary to common sense, although common sense alone could never have discovered it.

"When we survey the solid foundation of facts,—innumerable, incontestable, well-observed facts, upon which the conclusions of phrenology rest, we who have studied these, and who know what it is we trust in, can regard with a degree of calm contempt, of which our adversaries can hardly form a notion, the prodigiously imbecile attempts which have been made to put the system down, either by what is considered Reasoning, or what has very erroneously been designated Wit. We certainly are not so unreasonable as to expect, that, on the first announcement of a new science such as this, founded on an extensive observation of facts, our assertions shall be admitted without examination. But we certainly have a right to complain of those who will neither believe us, nor examine for themselves.

"The facts observed by the phrenologists are got rid of in a very summary way. 'Who knows, *for example*,' asks one, 'whether, for every case brought forward by them, there may not be one of an opposite kind *kept* in the back ground? To say nothing of the delicacy, the candour, or the justice of such a supposition, or rather such a charge (for it infers the utmost disingenuousness and even moral depravity in the phrenologists,) we shall merely remark, that it is utterly inadmissible in fair argument. We are not here in an Ossianic or a Rowleian controversy, respecting the authenticity of manuscripts which nobody ever saw, or the genuineness of traditionary poetry which nobody ever heard. The facts are as patent to all as the light of heaven, and within the reach of every, even the meanest capacity. Nay farther, so very open have the phrenologists laid themselves to detection, that they have published to the world their methods of observation, and furnished every one with the means of making observations for himself, whereby he may be enabled to detect their errors, if they are in error, and to expose their quackery if they are really quacks. It is certainly incumbent on those who deny the universality of the coincidences asserted, to prove the exceptions, and to produce instances to the contrary. They have been challenged to do so for at least ten years; and they have been challenged in vain. What is the legitimate inference to be drawn from this?—Plainly, *that they have no facts to produce;* and considering the numbers, the weight, the abilities, and the zeal of the opponents of phrenology—the rank which they hold in science, and the interest they have to maintain their supremacy—it is not too much to say that, *had any such contradictory facts existed, they would have been produced before now.* To this we cannot imagine the shadow of an answer."—*Phrenological Journal, p.* 22.

To show that the science rests upon facts, the evidence of the existence of the propensity and organ of destructiveness is examined, and we fear it will prove but too destructive to

the character for sound reasoning of those who think proper to disguise it. There are twenty very interesting pages of evidence.

The third and fourth articles contain some complaints against Dr. Barclay and Professor Jameson: we hope those gentlemen will exculpate themselves.

The fifth is an abstract of Mr. C. Bell's discoveries of different functions being performed by different nerves, from the Philosophical Transactions;—this gentleman appearing to have shown with respect to the nerves, as Gall did with respect to the brain, that different nerves have not the same offices, nor the same nerves various offices.

The sixth is a dialogue between a disciple of the old school and a phrenologist, displaying the manner in which people make up their minds that phrenology is all vanity and vexation of spirit.

The seventh is to show that Reil does not detract from Gall's merit, but, on the contrary, speaks of his discoveries in the highest terms. Professor Bischoff says that Reil declares "that he had found more in Gall's dissections of the brain than he thought any man would have been able to discover there during his whole life." The celebrated anatomist Loder also says, "I am ashamed and angry with myself for having, like others, during near thirty years, cut slices of brain as we cut cheese, and not have seen the forest on account of the number of the trees. But why be vexed and ashamed? The best way is to listen to truth, and learn what one is ignorant of. I say, like Reil, that I have found more than I thought a man could have discovered during his whole life."

The eighth is an allegory of a spider and a bee—the former staying at home, forming no acquaintance with the world, and producing nothing useful or agreeable, representing the metaphysicians; and the latter, roaming in the sunshine over all the beautiful productions of nature, and effecting a substantial and delicious nourishment, representing the phrenologists. The simplicity, correctness, and elegance of this article would not disgrace the Spectator.

The ninth compares the enemies of phrenology to various animals. The wasps have venom enough, but nothing more than filth and trash is to be found in their cells. The butterflies flutter in the sun, but make no provision for winter, and they die when the sun withdraws its influence. The ants are industrious enough in their way, but incapable of rising from the earth and extending their views all over nature. The geese have a very solemn gait and carriage, delight in low grounds and waters, and attack all who approach them, but their hissing attacks are always laughed at. The ducks re-

semble the geese, but are much inferior, and so dirty as to prey on garbage: they attack with crying quack! quack! The owls are blinded by the light of the sun. The parrots say what they have learnt from others by rote, without knowing the meaning. The monkeys grin and chatter with no more sense, and are moreover very mischievous. The bears are rough and uncultivated, inhabiting the coldest and most barren regions, and despising the beauties of nature: their hug is formidable, but they may be caught and muzzled, when, after proper discipline, they form a natural alliance with the monkey, and afford pretty sport for children. The swine wallow in mud. The asses, very patient and sedate, no doubt, are, however, so obstinate, that neither blows nor kindness have the least effect upon them. The curs, though fawning enough upon occasion, are perpetually snarling and yelping at some animal nimbler than themselves, but it sometimes happens that a steed, irritated by a more than ordinary tone of impertinence in his canine foe, will lend the yelper such a salute as may lay him sprawling in the kennel, and, changing his yelp into a howl, send him home limping and lamed for life. The editors of the journal profess to know the kennel of animals well, and to have sometimes listened to their midnight howlings; in which, for the most part, they say it is impossible to distinguish any thing more than the gabbling of geese, the screeching of owls, the chattering of monkeys and parrots, the growling of bears, the grunting of hogs, the braying of asses, and the yelping of curs, and the collection is found at Blackwood's menagerie. By this article it appears that, while the Transactions are dignified and intended for grave philosophers, the Journal will be frolicsome, and castigate, without mercy, all unfair, uninformed, and impertinent opponents.

The tenth is a letter from Miss Cordelia Heartless, informing us how she explained to her inamorato that he had not her heart, but a bump in her head. It is witty enough, but would equally serve as a little quiz upon phrenology.

The eleventh is the first specimen of the application of phrenology to criticism. The piece is Macbeth, and the writer most successfully shows that Shakspeare has drawn the character, not only, as we know, in perfect uniformity with nature, but with phrenology. To give a specimen is impossible in such a continued application of phrenology to the whole feelings and conduct of Macbeth, but the harmony of the character with the phrenological view of human nature is incontestable; and, the truth of the character to nature being allowed, the harmony is no small confirmation of the truth of phrenology. Some few have thought Macbeth's

character inconsistent—that a man so good in some points could never have brought himself to commit such an atrocious deed. But, if we look abroad, if we look into ourselves, we shall find great inconsistency of character. This undeniable truth is inexplicable upon all the metaphysical views of human nature; but, upon phrenology, quite explicable. Phrenologists teach, that dispositions the most opposite may exist in the mind; that in all men are certain faculties, (no matter for the name,) often, indeed, conspiring to the same end, and always intended by the Almighty for a good purpose, but frequently drawing in different directions, and, as one or the other gets the upper-hand, so will the character appear in an opposite point of view.

In the next number we are promised a phrenological review of Quentin Durward; the trials of Margaret Lindsey; Mr. Owen's new views of Society; the parliamentary report on Millbank Penitentiary; and of Dugald Stewart on *Milton's* Garden of Eden.

The eleventh article is on the skulls of three murderers in the museum of the College of Surgeons, Dublin, and affords a good specimen of the mistakes and the unfounded reports thence arising which occur every day among persons unacquainted with, and not over friendly to, phrenology. We often hear it said that such a man's skull is any thing but accordant with his character, while, on inspection, a phrenologist finds it an admirable confirmation of his doctrine. This it appears was the case with the skulls here described. The person who showed them in the museum begged the visiter to remark that the organs of destructiveness, &c. were not larger than in ordinary men. On a careful examination, it turned out that their developement of those skulls was more murderous and brutal than even that of the skulls of Gordon and Bellingham.*

The thirteenth is upon materialism and skepticism, being a sort of critique upon the Rev. T. Rennel's Pamphlet, and Somotopsychonoologia.

Most persons who rail against materialism know nothing of the subject which they presume to talk of, and not a few, we are ashamed to confess it, (and some of those are of our own profession,) appear to make a clamour in the hope of conciliating the good graces of that numerous party, many of whom mean well, and who have much in their power.

Now the word materialist sometimes signifies a man who believes that the universal system has been formed by chance,

* The grossest mis-statements went forth to the public respecting the head of Thurtell.

and that there is no God. Such a man cannot surely exist at present. If he does, he should be pitied rather than condemned; his intellect must be deficient: the *fool* hath said in his heart there is no God. Such a man can do no harm. He cannot convince the sane; and, if he could, the laws and duties of morality would still remain written on our hearts, and the voice of conscience must still be heard.

The word materialist is sometimes used to denote a man who believes in God, but thinks there is no immaterial principal in man. Suppose him right, would not the laws of God —the laws of morality written by Nature in our hearts, as St. Paul declares, be equally clear and equally imperative? And if God be pleased to reveal to us that we shall live hereafter, can the disbelief of an immaterial principle within us prevent us from believing his revelation? If it were *demonstrable philosophically* that we have an immaterial principle, and that this principle is *therefore* immortal, we may rest assured there would have been no revelation to inform us of the resurrection:—Christ would not have risen from the dead the first fruits of them that slept, to convince us of it. Again, what difficulty does the belief of an immaterial principle remove? The resurrection, we read, is of body as well as mind—men will rise *with their* bodies, and not only has Paley a sermon urging this, and Dr. Chalmers one in a volume just published, in which he contends that the next world will be as material as the present, but our mother church has so great a respect for matter as to declare that the Almighty is invested with it in Heaven:—one of her articles asserts, that the very and eternal God ascended into Heaven, and there sits with *body, flesh,* and *bones.** Away, then, with this intolerance of materialists—this invective and contempt worthy of the dark ages. We have to do with only what we observe, and neither the existence nor non-existence of an immaterial principle can be proved, nor is it of the least importance to philosophy, to morals, or to religion. Moreover, to charge phrenology with materialism is too bad. He who believes that a blow on the head will stun, is as much a materialist as he who believes in phrenology. We earnestly recommend the paper before us to the careful perusal of every one. It is written powerfully and clearly, and is worthy of a better place than a journal. We suspect, from the style, that it is by Mr. George Combe, but that is of no consequence. We have heard some declare it should be written in letters of gold.

Of the two remaining papers, one is a short account of the Transactions, and the other a capital quiz upon those who

* Article IV. in conjunction with article II.

maintain the mind to be independent of the head. It is the prospectus of a high German quack in bad German English, and is very facetious.

Highly as we think of the journal, we regret that it should condescend to notice every folly and scurrility, and still more that it should occasionally notice them in the way of railing for railing. If phrenology is true, the grandeur of its truth will bear down all the fry of petty assailants, and silent contempt will often be its most efficient and dignified mode of conduct. All respectable and sound, or at least apparently reasonable, objection should receive attention, and be respectfully answered; and, in a journal, new illustrations of the doctrines, such as must be daily occurring, should be set forth, and all phrenological news given. But good part of the Introductory Statement, and the whole of the Enemies of phrenology had, perhaps, been better omitted, and such papers as the Suppression of Phrenology, a Dialogue between a Philosopher of the Old School and a Phrenologist, the Spider and the Bee, the Letter from Miss Cordelia Heartless, and Donnerblitzenhausen's prospectus, should be sparingly inserted, whatever their merit, because they do not afford new facts or additional light. Still we hardly object to the number of such papers in the first volume, any more than to the Introductory Statement, the Outlines of Phrenology, and the View of some of Dr. Spurzheim's Lectures in the Transactions; because the subject may be fairly thought to be by no means familiar to the generality of readers. But future numbers should certainly consist of papers of a different description.

VIII.

On the Nature and Treatment of the Distortions to which the the Spine and the Bones of the Chest are subject. With an Inquiry into the Merits of the several Modes of Practice which have hitherto been followed in the Treatment of Distortions. Illustrated by Plates in folio. By John Shaw, Surgeon, and Lecturer on Anatomy. Octavo, pp. 293; one Plate. London, 1823.

The world, as it now goes, and probably, as it has ever gone, is often more attentive to appearances than to realities—to the symmetry of the external form, than to the integrity of the internal functions. The mother, whose daughter's back deviates from the perpendicular, will fly to the charlatan who promises a speedy and certain restoration, rather than to the scientific surgeon who studies the mechanism, functions, and diseases of the spine. Such encouragement from the public has produced and fostered a host of regular quacks, and, per-

haps, some quack regulars, in this department of the healing art; and, as might be expected, we have almost as many modes of treatment as practitioners on the spine. We are glad to find, that more than one or two surgeons of talent and knowledge are now prosecuting the pathology of the spine with zeal, as this is the most likely means of rescuing the diseases in question, from the hands of ignorance or knavery.* This class of disorders are of far more importance than is generally supposed. The spinal marrow exercises such an extensive range of influence over almost all the viscera of the chest, abdomen, and pelvis, that any encroachments on its form or structure must, more or less, impede or disturb their functions. For although the viscera will surprisingly accommodate themselves to distortions of the spinal column and ribs, as far as form or site is concerned, yet they cannot conform, with the same ease, to the interruption of nervous influence resulting from morbid changes in the column itself. We have daily opportunities of witnessing the derangements of function in the heart, lungs, and digestive organs, from diseases of the spine, and, therefore, recommend the study of these, not only to the surgeon, but to the physician and to the physiologist.

The present work is occupied solely with that kind of distortion termed "lateral curvature," Mr. Shaw reserving the other spinal affections for a second volume.

He properly observes, that it may be stated as a law of the animal economy, that the exercise of an organ is necessary not only to its perfection, but even to its preservation.

"In the investigation of this law, we are led to the curious and important conclusion, that the cellular membrane is not to be regarded merely as a modification of the original tissue or matter in which the peculiar substances that give character to *bone*, *muscle*, and *nerve* are deposited, but even that from which other parts may be formed. The leading proofs upon which this opinion rests, are, that the several organs, unless kept in action, degenerate into cellular membrane; and that under certain circumstances, new organs, different in appearance and in function, may be formed, where nothing but cellular membrane was before visible." 2.

Thus, as long as a joint, for instance, is kept in activity, the apparatus continues perfect, and the various structures of which it is composed are abundantly distinct—but, when the motion of a joint has ceased for some time, all its complex parts degenerate into one homogeneous mass, resembling cel-

* We hope the prize offered by the London Medical Society for the best Practical Essay on Spinal Diseases, will call forth some valuable information on this subject.

[illegible] The [illegible] of these, Mr. Shaw observes, [illegible] good. New organs, different in appearance and function, may be formed of cellular membrane. Thus, when the intestinal coat of a nerve has for some time imbedded in the cellular membrane, cartilages, tendons, bones, ligaments, &c. are all formed from it, and this new part, though it may not have the certainty of an original one, will perform the office intensely well, the new capsule exhibiting all the characters of the proper synovial membrane. Various other examples are adduced of the functions and structures altering according to circumstances, shewing the plastic powers of Nature. But to return to the subject of degeneration of parts from want of exercise. The effects of inertion on the muscular structures is well known, and are often exemplified, Mr. Shaw observes, in the wasting of the muscles of young people under a state of confinement for slight fractures, where they are encased in machines that not only prevent muscular exertion, but make pressure on, and cause absorption of, particular parts. The bones themselves waste away or become absorbed when no longer exercised, as is exemplified in the balls and sockets of fractured joints, &c.

"If a soldier in active service receives a wound for which immediate amputation is necessary, or if the same operation be performed on a strong labourer while he is in full health and exercise, the bone is found hard as ivory, and compact in structure. But if either the soldier or the hospital patient should, in consequence of the accident, be confined to bed for some time before the leg is amputated, the bone is found soft and spongy, like that of a scrofulous person. A most remarkable instance of this is preserved in Mr. Bell's museum. It is part of the thigh-bone of a very strong man, who was a country brewer's drayman. The bone had been fractured, but being badly managed, had never united. After the lapse of two years the limb was amputated: but the bone, though still of its original diameter, is not thicker in its walls than the tenth of an inch, the cavity having been filled up with a cellular structure loaded with fat. A still better example is recorded by Cheselden, the most eminent surgeon and anatomist of his day. In his splendid work on the bones, we find in the explanation of the fiftieth plate, the following description:—'The thigh-bone of a soldier, who was shot in the right groin at the siege of Gibraltar, who being brought home the next winter, died soon after of a dropsy; the thigh-bone was wasted so much, as appears in the draught, and being weighed, after they were both sawed length-ways with a fine saw, the right weighed less than half the weight of the other.'" 9.

The same law extends to ligaments, nerves, arteries, &c. with some modifications in particular structures.

No part of the body offers more striking exemplifications of this law than the spine. The muscles that support the

vertebræ become so weakened for want of exercise, as to be incapable of performing their functions. The vertebræ, and the ligaments which bind the vertebræ together, yield to the superincumbent weight;—and hence muscular weakness, though not the only, is one of the most frequent causes, or forerunners of spinal distortion.

The effects of general and regular exercise of the muscles are not more remarkable in producing symmetry than the partial and undue action of them is, in producing disproportionate developement of particular muscles, and in that way a species of deformity. This is seen in opera dancers, whose lower extremities are far more muscular than the other parts of the body; while in gold-beaters and blacksmiths it is the reverse. There is in exercise, as in every thing else, a golden mean, from which we cannot swerve far without danger.

"The capacity of yielding to a stretching power is natural to parts formed of cellular membrane, and possessing vascularity and life; but if this be done beyond a certain degree, and particularly if it be done suddenly or partially, a change of vascular action may be induced, attended with a visible alteration in the structure of the part. Thus, after a violent sprain, the ligaments become spongy and weak; or after long and undue stretching, they are unnaturally lengthened, and become elastic. This last effect is particularly evident in the lateral ligaments of the knees of chimney-sweeps, and in the condition of the ligaments of the feet of the opera-dancers. It may be observed, that the ligaments of the ankles of some of the most admired dancers are so unnaturally stretched, that in certain postures, as in the bolero dance, the tibia nearly touches the floor; so bad indeed is the effect occasionally produced by frequent stretching of the ligaments, that the feet of many of them are deformed; for the ligaments which bind the tarsal and metatarsal bones together, become so much lengthened by dancing and standing on the tips of the toes, that the natural arch of the foot is at last destroyed. This effect is very evident when the dancer is obliged to bring his heels to the ground, as in walking the streets; he then appears lame, the position having become almost unnatural to him."* 18.

From the preceding and various other considerations Mr. Shaw thinks himself justified in coming to the conclusion that the most probable source of many distortions is either in "*the cessation of the actions of some particular part, or in the undue and partial exercise of others.*"

The occasional success attending the efforts of the charlatan, who is not guided by the light of anatomy or physio-

* "The gait of an opera-dancer, in walking, may be said to resemble, in some respects, that of a bear dancing; for this animal, which, like all other quadrupeds, walks on the tips of his toes, when obliged to *dance* must bring his heel or os calcis to the ground."

logy, may depend often on his calling into action, by friction, &c. the dormant powers of Nature. The following case is offered as an example.

"A gentleman having been thrown from his tilbury, hurt his shoulder severely, and a very eminent surgeon was sent for. Before he arrived, much swelling had taken place, and it was difficult to discover whether there was dislocation or fracture; in short, it was supposed to be only a severe bruise. As the patient, however, did not, in the course of two months, recover the use of his arm, he went to a rubber; who told him that his arm was dislocated, and proposed to reduce it. I was requested to see the gentleman, and found that the humerus was certainly dislocated, but in a very unusual manner, the head of the bone being laid on the infra spinatus space of the scapula. The dislocation could not have been directly occasioned by the fall, but consecutive upon the change produced in the joint by the bruise; for had such a displacement existed at the time when the arm was first examined by the surgeon, he could not have overlooked it, although the joint might have been very much swollen. The patient, however, thought otherwise: the surgeon was disgraced in his eyes; and the rubber having discovered a dislocation, gained his entire confidence. When I first saw this patient, he had no power over his arm; but by severe rubbing and pinching, while at the same time, the arm was kept in constant motion, the muscles acquired power; and a new socket being at length formed, the use of the arm was so far restored, that the gentleman was again enabled to drive. Although the operator was deceived in his expectation of putting the bone into its place, and although he was probably not aware that he had been acting on a correct physiological principle (for he had made a new joint) yet we cannot deny that much good was done; nor can we be surprised that a patient, under such circumstances, should praise the quack at the expense of the surgeon." 22.

A knowledge of the principle on which success depends (observes Mr. Shaw) enables us to expose the tricks of those who pretend to push the bones of the spine into their places, after the vertebræ have (according to their language) been softened into a jelly by an hour's hard rubbing. The cases in which the benefit of friction, shampooing, pressure, thumbing, &c. (which are all modifications of exercise) is most apparent, are those of stiff and contracted joints, after rheumatism, or any chronic inflammation. But great perseverance is necessary in such cases—and a degree of boldness which, *à priori*, might seem dangerous—and sometimes is so. We find, however, that delicate patients bear much more severe treatment than could be expected; and the occasional success attending such bold and decided practice proves that, when judiciously applied, it may be a powerful restorative mean, particularly in contractions of the joints.

"Distortion of the spine is frequently the consequence of a dis-

ease which destroys the bodies of the vertebræ. During the active stage of this complaint, the rubber or machine-maker, unacquainted with the structure and diseases of the part, may, by operations intended to remove the distortion, so increase the irritation as to cause the death of the patient. But a very little knowledge will enable one, who by his conduct has acquired the opprobrious term *quack*, to understand that he cannot do so much as the surgeon can, during the active stage of the complaint. He therefore waits until the disease has been cured by anchylosis of the vertebræ (this, it is most necessary to state, is almost always attended with a degree of distortion which it is impossible to remove;) he then unblushingly makes promises, that in a certain time he will remove the deformity by restoring the bones, which he pretends are dislocated, into their proper places; being probably aware, that by rubbing and pressing the bones and muscles of a weakly patient, so much real and immediate benefit will be produced, as to give confidence in his promise of doing much more in time.

"It is generally said by such persons, that a certain time is required to soften the bones; and when that is done, it is easy to put them into their proper places. But it is more than probable, that those who can talk thus, are aware, that by rubbing and pressing the bones, they become harder; that they are not dislocated, but misshapen, by the destruction of part of their bodies (from which the distorted appearance of the whole spine arises;) that they are now firmly fixed and anchylosed; and that if it were possible to push them in or out, the operation would certainly be fatal to the patient." 29.

The next subject of inquiry is into the causes of the partial paralysis and wasting of one of the limbs during infancy, frequently producing distortion of the spine. In the great majority of these, observes our author, two circumstances seem to be common—"their connexion or dependence on the state of the bowels, and the effect they produce on the spine or limbs."

"The species of paralysis most interesting in relation to distortion of the spine, is that which is marked by a wasting or deficiency in the growth of a particular part, although unaccompanied with much defect, either in the power of sensation, or of motion.

"Such cases are not only important, in so far as they regard the organ affected, but in the influence which they have over other parts of the body; and this latter consequence is the more interesting, as by proper care, it may be counteracted.

"A diminution of size in one eye is the most common example we have of this affection; but neither this nor the diminutiveness of a finger, (unless for the deformity of their disproportionate size to the other organs) are of more consequence to the patient, than being indicative of the constitution being weak, and hence liable to more important defects. When one of the limbs becomes affected, not

only is there a great deformity in the part itself, but the affection is often the source of distortion of the spine.

"Such an instance as the following is not uncommon:—A boy, on coming home from school during the holydays, was observed to limp in walking, and to appear crooked while standing. On being stripped, the left shoulder seemed to be lower than the right; but, on further examination, this effect was seen to be produced by the oblique position of the pelvis. On making him stand up, so as to bring the shoulders to the same level, the left heel was raised from the ground. And on carefully examining the left leg by measurements, it was found to be much smaller, in all its dimensions, than the right.

"In several cases nearly similar, the change in the character of the limb became evident so soon after an attack of abdominal irritation, as to leave little doubt of the cause. But, in the greater number of such cases the defect is seldom observed at the time of the first influence, and does not become evident until the other parts of the body are fully developed. In consequence of this, it is often difficult to trace these affections to their origin, and we are occasionally unable to determine whether they proceed directly from a certain condition of the bowels, or from a disease of the brain. It is probable, that in most instances, the remote cause is a deranged state of the bowels; the affection of the brain being, as it were, intermediate between the disturbance of the bowels and the paralytic muscles." 34.

Mr. Shaw brings forward several cases and observations in illustration, for which we must refer to the work itself.

In respect to the treatment of these cases, it is evident that we must attend to the state of the digestive organs, and if actual paralysis have taken place, the local affection also must claim our attention. We must endeavour, on the principle that active exercise of an organ is necessary to its perfection of function, by friction, shampooing, warm and cold bathing, &c. to excite a certain degree of action. This, Mr. Shaw thinks, is to be assisted by mechanical contrivances to bring the paralyzed muscles into play, and also to support them in certain positions while they are at rest. The particulars will be treated of farther on.

On the Distortion called Lateral Curvature.

When the spine of a girl, about the age of fourteen, is becoming crooked, the attention of the mother is at first directed to the state of the shoulders or breasts—one either appearing larger than the other, or growing so unequally as to lead to a suspicion that it is diseased. In a still younger girl the state of the right shoulder attracts attention, as it appears larger than the left, and is often said to be "*growing out.*" The same is sometimes said of the hip.

"If the spine (which has probably been overlooked by the mother) be now examined, it will be found to be curved nearly in the form of the italic *f*. The whole of the right side will also have acquired a rounded and barrel-like form, while the left is diminished and contracted, the ribs being closer together than is natural. There is, moreover, a sinking in, or depression of the right, and a corresponding fulness of the left loin.

"This description nearly corresponds with the sketch of the girl's figure in the second plate given in illustration of the effects produced by a slight lateral distortion of the spine. The second figure in the same plate will assist us in forming a correct idea of the causes of the above changes in the form; for it will at once be evident, that the size of the right shoulder, the swelling of the same side of the neck, and the increased distance of the tip of the shoulder from the head, do not depend on any enlargement of the scapula or muscles of the shoulder, but on the change in the relative position of the ribs. It will also be obvious, that the appearance of the left hip being *out*, is caused by the left ilium being more elevated than the right, which is a consequence of the weight of the body being sustained principally by the right leg. The cause of the barrel-like form of the right side of the chest, and the contracted state of the left, is also obvious; and it is easy to comprehend how the projecting transverse processes of the lumbar vertebræ may give the appearance of fulness to the lower part of the same side." 50.

The cause of lateral curvature has given rise to much difference of opinion among medical men—some alleging that it depends on disease of the bones, while others maintain that it proceeds from disease of the muscles. Mr. Shaw, before examining into these opinions, endeavours to describe the manner in which the most common distortions take place.

While a girl, he observes, is in a slightly debilitated state, from fever, or from the change at a certain age, the lumbar portion of the spine often yields to the superincumbent weight of the chest and head—the yielding being at first so slight and gradual as to elude observation, until the upper part of the spine is curved in the opposite direction by the natural effort to restore the balance. Then the effects of the distortion become very remarkable, though the cause may still remain unobserved.

"If the spine were now to be examined, the case could hardly be mistaken; for in all probability, it would not only be twisted to one side, as the term lateral distortion implies, but three curves would be found in it. One (and which was probably the first formed) commencing at the pelvis, and passing towards the left side, as far perhaps as the tenth dorsal vertebra; from which the spine would probably take a gradual bend towards the right, up to the third or fourth; and from this, the upper part of the spine would take a slight curve towards the left, thus bringing the head nearly perpendicular to the pelvis." 53.

The above may be the general way in which curvatures take place in weakly children; but as they also occur in children who are robust, we must seek for some other causes than those described above. One cause Mr. Shaw traces to habits of standing or sitting in unnatural positions. Boys, in saying their lessons, often balance themselves on the left foot, the consequence of which is a slight curve of the whole spine. By long continuance of this habit a slight distortion is produced, and kept up or increased by mal-position while sitting writing, the right shoulder being kept more elevated than the left. The distortion will be still farther increased by using a soft feather bed with a high pillow, as he will naturally lie on the right side. If, in good health, the boy be permitted to run about and exercise all his muscles, he will soon recover from these slight distortions; but not so if he be neglected, if he fall into bad health—or enter a profession where he is much confined to one position. As may naturally be supposed, girls are more liable to these curvatures than boys, from their more sedentary habits.

"If a weakly girl of ten years old be obliged to sit for hours on a narrow bench, without any support to her back, it is not surprising, that notwithstanding all the reproofs she may receive, she endeavours to relieve herself by allowing the lumbar vertebræ to sink to one side. This may of itself be sufficient cause for the origin of a curve; but if the position in which girls generally sit while writing, drawing, playing the piano-forte, and more especially the harp, be taken into account with the causes already mentioned, it will be admitted that it is scarcely possible for a girl so situated to avoid being crooked, particularly if she is not permitted to take such exercises as give tone and strength to the muscles of the spine." 56.

Our author next endeavours to give a more particular description of the condition of the shoulders and ribs in common cases of lateral curvature, as their form alters very much according to the degree of distortion, or the plan of treatment pursued. Thus, when the spine is not much distorted, we shall probably find the right shoulder and breast larger and more prominent than the left—but if the curve of the spine be increased, the breast may be flat and contracted although the shoulder (right) be large and round.

"It may also be occasionally observed, that the breast and the upper part of the neck, on the left side, are prominent, while the same parts, on the right side, are lower, although the right shoulder-blade is more prominent than the left.

"That an increase of one side of the chest is the consequence of even a very slight lateral curvature of the spine, may be proved by bending the body to one side. This effect is demonstrated in the second figure of the second plate.

"But when the curve is increased, the ribs become flattened in front; and it is in consequence of this, that in general, the more prominent the shoulder is, the flatter the breast becomes. If the distortion be permitted to increase still farther, a complete change in the form takes place; the cause of this will be shown in the explanation of the second and third figures of the third plate." 60.

For various other observations on the changes of form in these parts, we must refer to the volume itself.

Mr. Shaw now proceeds to examine the opinions which have been advanced and acted on respecting the causes of lateral curvature of the spine.

In London, at present (Mr. Shaw observes,) the idea is prevalent, that the distortion in question depends either on a diseased, or an undue and irregular action of the spinal muscles. But as the spine is almost invariably curved in two opposite directions, it is quite impossible to form an idea how the mass of muscles, running along the vertebral column could thus act in two different ways on the same side. If distortion depended on an undue action of the muscles of one side of the spine over those of the other, the curve should be always in the form of a single arch, instead of being serpentine, as it generally is. The practice formed on this theory in Germany, is to anoint the muscles on the contracted side with softening and relaxing unguents, such as goose grease, &c. whilst the weak muscles on the opposite side are to be rubbed with spirits and strengthening liniments. In England it has been proposed to keep the patient in the horizontal position until the equilibrium of the muscular power is obtained. The German practice, Mr. Shaw thinks, is at least innocent—but not so the English.

Another opinion has been advanced, that spinal distortions depend on a diseased state of the ligaments. But, although the form of the ligaments be altered in almost every case, the change, Mr. Shaw thinks, ought to be considered rather as the consequence than the cause of the disease; for a similar change may be produced by merely keeping the ligaments long in one position, as exemplified in the condition of the limbs in Opera-dancers and tumblers.

"In the spines of those who have been much distorted, I have found the intervertebral substance diminished on the concave part of the curve, in the same proportion as the bodies of the vertebræ, but I have never found any mark of disease in it; on the contrary, in the cases which I have examined, it has retained all its peculiar firmness and elasticity." 72.

"*Is lateral distortion ever consequent upon dislocation of the vertebræ?*" A distinct and peculiar mode of practice

having been founded on the theory of dislocation of individual vertebræ being the cause of distortion, our author observes;—

"There has been no example of actual displacement of one vertebra from another producing distortion, similar to those that may be daily seen, recorded by a person of any authority. The last, and certainly the best authority upon this question, Sir Astley Cooper, says, 'It has been generally stated by surgeons, that dislocations of the spinal column frequently occur. But if luxation of the spine ever does happen, it is an injury which is extremely rare; as in the numerous instances which I have seen of violence done to the spine, I have never witnessed a separation of one vertebra from another, through the intervertebral substance, without fracture of the articular processes; or if those processes remain unbroken, without a fracture through the bodies of the vertebræ. Still I would not be understood to deny the possibility of dislocation of the cervical vertebræ, as their articulatory processes are placed more obliquely than those of the other vertebræ; from the vicinity of our hospitals to the river, sailors are often brought into them with injuries of the spine, by falls from the yard-arm to the deck; and as there is almost always an opportunity of inspection in these cases, a dislocation must be extremely rare, since I have never met with a single instance of it, they having all proved to be fractures with displacement.'

"I may refer to the Appendix to show that the instances of injuries of the spine, preserved in Mr. Bell's Museum, corroborate the opinions expressed by Sir Astley Cooper." 74.

Mr. Shaw has had, by accident, an opportunity of judging of the nature of the evidence which has been adduced in support of the opinion, that dislocation is a common cause of distortion, and in this place contradicts a statement made in the 44th volume of the Medical and Physical Journal, by Dr. Edward Harrison, respecting a child knocked down by a Hampstead coach. Dr. Harrison had stated as follows:—

"Upon examination I found the first lumbar vertebra wholly dislocated and driven into the left loin. The right transverse process is sunk downwards; the opposite one has risen, and can be distinctly felt below the skin. The last dorsal and second lumbar vertebræ were also displaced by the accident. Several other dorsal bones are also suffering spontaneous luxations from the want of vertebral support below them." *Loco citato.* 77.

Mr. Shaw, on the other hand, could not discover any of the dislocations above described, whe examining the child, who died suddenly of croup. The note he made at the time is as follows:—

"There is a fracture in a horizontal line in the middle of the first lumbar vertebra, the lower half continuing attached to the other lumbar vertebræ, the upper to the dorsal. The two portions are united together obliquely by a ligamentous matter, so that, at this part, there

is an appearance of dislocation; but there is not the slightest displacement of any of the other vertebræ. The spinal marrow is completely destroyed at the fractured part." 77.

Several severe strictures are here passed on Dr. Harrison's practice, which we conceive he is bound to answer, and therefore shall not dwell on them in this place.

The next inquiry is into the opinion, that lateral distortion is caused by disease of vertebræ. This opinion is embraced, Mr. Shaw observes, by many of the best-informed members of the profession. Our author does not deny that disease of the spine will produce distortion—but he thinks that the distortions, in these instances, will generally be found very different from lateral curvature, being either consequent upon caries of the vertebræ, or upon *rickets*, a disease that especially attacks the osseous system.

The *post mortem* reports of cases of lateral curvature generally represent the bodies of the vertebræ as softened and full of a scrofulous substance; but this, Mr. Shaw thinks, is incorrect, for in the greater number of cases, the internal structure of the bodies of the vertebræ has a natural appearance.

"It is easy to account for the mistake. If the vertebræ of a patient, who has long been confined to bed, be examined, the appearance described above is found; but if the person has been in the habit of taking exercise a short time previous to death, the bodies of the vertebræ are discovered to be as firm and compact as those in a perfect spine. I trust that it is now almost unnecessary to add, that instead of admitting that the softened condition of the vertebræ affords a proof of the existence of a scrofulous disease, that it should be considered as merely showing the bad consequences of confinement and want of use. The wasted appearance of the muscles, which is occasionally observed in cases of lateral curvature, and which has been confounded with their state during the inflammatory stage of the carious diseases of the spine, also depends on the same causes as the softening of the bones.

"It is well known that the shape of the vertebræ is materially altered in cases where the spine is much distorted; but as no mark of disease is discovered when a section of the bones so mis-shapen is made, we may infer that the change of form is a consequence that may be produced independent of any specific disease existing in the bones, especially as it is found to correspond to the direction in which the pressure has been made." 95.

In fine, Mr. Shaw comes to the conclusion that, with few exceptions, the bodies of the vertebræ, in lateral curvature, are not affected by any specific disease—and that they are not so liable as the more solid bones to be inflamed by the irritation of pressure.

In Mr. Shaw's experience, there have not been that pain in the back, and wasting of the muscles which are generally stated as accompanying lateral curvature. There is, however, occasionally, a weary pain in the back, which. in slight di-tortions, he attributes to weakness, as it is quickly relieved by certain exercises which would increase rather than diminish pain consequent on inflammation or disease of the vertebræ

Mr. Shaw next describes the plates, introducing anatomical and pathological remarks, which cannot be understood without reference to these plates. From these descriptions, however, we gather that our author considers the distortions attending lateral curvatures as generally depending not on disease or material alteration in the structure of the bones, but simply on *curvature* of the spinal column. Another conclusion to which our author comes is, that in lateral curvatures, the pelvis is never distorted by the application of instruments, as had been very generally suspected, especially since the lectures and writings of Mr. Wilson. The following extract will convey some idea of Mr. Shaw's opinions respecting curvatures of the spine, with or without disease of the bones.

"The specimen represented in the fourth plate is offered as an example of the extent to which the spine may be distorted, independently of any specific disease of the osseous system. The proofs upon which this opinion rests were first drawn from a comparison of a number of distorted skeletons. It was often found, that although the spine and ribs were distorted to the greatest possible degree (as in the specimen before us,) there was no deformity of the limbs; while on the other hand, the limbs were often much distorted, although the spine was little affected. From an observation of these facts, I was led to conclude, that among the great varieties of lateral distortions, there were two distinct classes, differing most essentially from each other. On farther investigation it was found that in the one, the distortion seemed to be owing, or at least to accompany a specific disease of the osseous system, which evinced itself in some of the long or solid bones; while in the other, no marks of disease were found, and the distortion was confined to the small bones which are bound together by ligaments, and are dependent on a muscular apparatus for the preservation of their form.

"From these facts, I drew two conclusions, which, if correct, will be acknowledged to be of some importance in practice. 1st, That unless some of the long bones, or the bones of the head, be affected, however distorted the spine may be, we are not to consider the disease as rickets, i. e. that the distortion does not depend on a specific disease of the bones; and 2d, That the spongy bones (as of the spine, carpus and tarsus) are not so liable to be affected by rickets as the long bones and those which are more compact in their structure." 126.

State of the Pelvis in Lateral Distortions. This is a subject of considerable importance, and can only be decided by the testimony of experienced practitioners. In several of the plates where there are distortions of the spine, there are no distortions of the pelvic bones. In some, however, these last are seen distorted, but in all of these, there is evidence of rickets. "So far we have proofs," says Mr. Shaw, "that there are many cases, in which, although the spine be distorted, the pelvis is not affected."

"But I shall even venture to say, that on prosecuting the inquiry further, we shall be induced to conclude, that in whatever state of distortion the spine and ribs may be, the bones of the pelvis will not be found distorted, unless there be at the same time, marks of rickets in some of the long or solid bones." 128.

In addition to the series of distorted pelvis, in Mr. Bell's collection, which corroborate Mr. Shaw's opinion, he offers testimony to the same effect from the writings of Sandifort, Cheselden, and Walther.

"The above opinions have been, in a great measure, proved to be correct, by the concurring testimony of the most eminent accoucheurs in London. Several of these gentlemen have told me, that it was not unusual for ladies who had distortion of the spine to have easy and natural deliveries, although they had been sent up to town for their first accouchement, under the idea that there would be a necessity for the assistance of instruments; while on the other hand, the pelvis was often so deformed, in cases where there was no curvature of the spine, as to require the aid of instruments.

"I was much gratified to find, that the mark which I had been led to consider as affording the best criterion, by which we may judge of the probability of the pelvis being distorted, corresponded with the experience of the same gentlemen; viz. the condition of the thigh bones, or tibiæ. Having been lately in Edinburgh, I had an opportunity of conversing with Professor Hamilton on this question. He told me that he had frequently met with instances similar to those mentioned in the preceding page. He moreover made an observation which I consider highly valuable, as affording another mark by which we may discover the condition of the pelvis:—He seldom or never found the pelvis affected, unless the distortion of the spine had commenced in early infancy. To those acquainted with the disease of rickets, the value of this remark will be obvious; for they must recollect that it is generally between two and five years of age that the first effects of rickets upon the bones are observed. It is scarcely necessary to state, that the common lateral distortion seldom takes place until a child is nine or ten years old." 132.

In respect to the liability of the bones of the pelvis to be distorted by the application of instruments, Mr. Shaw is bold

enough to assert that, unless there be a specific disease of the osseous system showing itself in other bones besides those of the spine, we need not be under any apprehension of distorting the pelvic bones by the said application of instruments. After quoting Mr. Wilson's sentiments on this subject, which are well known, Mr. Shaw observes that the pelves to which Mr. W. alluded were chiefly from Mr. Bell's museum, and those of the College. Both of these collections Mr. Shaw examined, and says they were examples of distortion from rickets, which disease is well ascertained to distort the bones of the pelvis, and often in such a manner as to resemble the compression from machinery, where no instruments had been used. Mr. Wilson's mistake arose, Mr. Shaw thinks, from confounding lateral distortion consequent upon weakness with that dependent upon, or accompanied by, a specific disease of the bones.

The next subject discussed, is that of the effects produced on the viscera by distortion of the bones of the trunk.

When we contemplate the skeletons of distorted subjects, it is evident that the viscera must have been very much encroached upon and altered in shape, though not so often in texture as we might expect. But although we must grant, with Mr. Shaw, that we every day see distorted people attain old age, we are not inclined, from thence, to infer, that organs incommoded and altered in position, as those of deformed people generally are, "still perform their functions properly." Mr. Shaw, however, only means that this is sometimes the case, for he immediately after adverts to the functional diseases consequent on distortion of the spine. The heart and lungs are the organs principally affected by its function in these cases—or rather we should say the organs of digestion, which we have very frequently seen deranged from spinal disorders. Symptoms of organic diseases of the heart are not unusual in these cases, and are with difficulty distinguished from real affections of structure in that organ. When we have distortion, however, we may generally give a more favourable prognosis, as the organs in time accommodate themselves to the encroachments of the surrounding parts.

"I had, at the same time, two patients who were supposed to be dying of disease of the heart. The one was a young lady who certainly had all the symptoms of disease of the heart, for she had great palpitations, with an irregular pulse, and she used frequently to faint; but these symptoms came on after she had been long confined nearly in a horizontal posture on the inclined plane, without being permitted to take the slightest exercise. Such a debilitating plan of treatment was sufficient to account for the source of most

of the symptoms; and on examining the condition of the spine, it was easy to explain the cause of the palpitations of the heart being more distinct than usual, for the spine was so twisted, that the heart was carried forwards, and its apex seemed to pass between the ribs. That this was the true explanation was easily proved, as there happened to be at the same time, another young lady under my care, in the same house, whose spine was curved in the opposite direction. In her, the natural pulsation of the heart could not be felt on the left side." 144.

The effects of these distortions on the lungs are considered by Mr. Shaw as comparatively of very little importance. In many cases which he has examined, where the lungs were affected, it has appeared to him, that the malformation of the chest was a *consequence* of disease of the lungs at an early period of life. "This opinion is founded on the belief that there is the same correspondence between the lungs and their external apparatus, viz. the bones and muscles of the chest, as there is between the brain and the skull." Laennec has given many cases where disease of the lungs has produced alterations in the form of the chest.

"Although it may be doubted whether distortion actually produces disease of the lungs, or whether a disease of the internal organ can be the cause of an alteration in the form of the chest, after a certain age, there can be no question of the practical benefit to be derived in considering the lungs and the chest as mutually dependent. The almost immediate good effect which results from a patient, who is nearly on the verge of consumption, regularly going through exercises, by which the muscles of respiration especially are brought into action, is so obvious, that the most sceptical theorist must, on observing it, be convinced of the close connexion that exists between the external and internal organs." 149.

Treatment. We now come to the inquiry respecting the several modes of treatment, and first of "*friction*, *thumbing*, and *shampooing*." On these Mr. Shaw makes but a very few observations. Although much mischief occasionally results from the attempts made by rubbers, who cannot distinguish between a distorted joint, in which a specific disease is still dormant, and a lameness consequent merely on the contraction produced by inflammation, still we must admit that wonderful changes are often produced by each of the processes above mentioned, not only in relieving stiffness and contraction, but even in restoring strength and vigour to weakly persons with slight distortions of the spine. These good effects would be still greater, of course, were the means under the guidance of people acquainted with anatomy and pathology.

On the Reduction of Vertebræ said to be Dislocated. After what has already been said on this subject, Mr. Shaw thinks it unnecessary to offer fresh facts in proof of the fallacy of the opinion, that the situation of the individual vertebræ, in a distorted spine, can be changed.

But he considers it incumbent on him to endeavour to explain the cause of the degree of success which occasionally results from the mode of practice followed in the attempts to change the places of the vertebræ. The process, he observes, has been kept as secret as possible, and, therefore, cannot be fully canvassed; but from the descriptions given by those who have witnessed the operation, we may conclude that its occasional good effects result from the confinement of the patient to the horizontal position, while the muscles of the spine are, at the same time, kept in such a state of activity by friction and pressure, as to be prevented from wasting. In this way, the bad effects of close confinement to the same position are, to a certain degree, obviated.

In respect to the last-mentioned practice (confinement on a horizontal or inclined plane for months or years) the arguments that have been offered in favour of the plan are founded on the idea that the distortion depends on an undue contraction of the spinal muscles, and a diseased state of the vertebræ.

"It is scarcely necessary to repeat the arguments that have been already offered in refutation of these views, nor are proofs now required to show that every part of the body is weakened and deteriorated by lying dormant. But I may state that it is scarcely possible to imagine any means so effectual, in preventing parts from performing their natural functions, as the plan proposed for the cure of a disease originally proceeding from weakness. Indeed, this now begins to be discovered, and the use of the inclined plane is gradually falling into disrepute. For it is found, that although a girl who is slightly distorted may become more straight after having been confined to the horizontal position for months, she does not gain strength, but on the contrary becomes so weak, that she can scarcely walk or stand; and when she attempts to sit up without some artificial support, she sinks almost double, or at least into a state worse than she was in when she first lay down. These are sufficient objections to the practice, but the effects which a long continuance in the system has upon the general health, are still more serious. We find that girls who have been long confined to the reclining board are delicate and liable to all the worst symptoms of hysteria; and I have already mentioned an instance of a young lady having so many symptoms of diseased heart, that she was treated accordingly, although they were afterward proved to have proceeded from the weakness caused by long confinement to one position." 158.

In making the observations, our author does not mean that

the inclined plane should be entirely abandoned. On the contrary, it forms an essential part of the plan of treatment he proposes for lateral curvature. Nay, he would even recommend that a delicate girl, although she may not be in the slightest degree distorted, should lie for some time every day upon the plane. It is true that the spine of the most delicate girl will not suffer by the upright position, *while she continues in a state of activity or exertion*—it is during a state of lassitude and relaxation of the muscles, that the horizontal posture is necessary, as it is then that the ligaments and bones yield.

Machines. Many and weighty objections are made by Mr. Shaw to the application of instruments for stretching and supporting the spine. Mr. Chesher, of Hinckly, is supposed to make use of this means only, by which he has gained great celebrity. But Mr. Shaw has reason to think that Mr. Chesher's method is either misrepresented or misunderstood—his remarks, therefore, apply to the general principle of mechanical extension, without reference in particular to Mr. Chesher's plans.

The objects proposed to be obtained by the application of what is called Mr. Chesher's collar, and certain improvements on it, are—to stretch the spine when it is curved—to keep it stretched—and, finally, to remove the cause or source of the distortion.

"The machine is fixed firmly on the pelvis; and when the body is elevated, by pulling upon the head-piece with the cord and pulley (the straps being under the chin and the back of the head,) the upright bar is fixed. As there is no elasticity in this bar, nor any provision for its being elevated or depressed, in correspondence with the motions of the body, the head must be invariably kept at the same distance from the pelvis; and as the head was forcibly elevated before the application of the instrument, great part of the body must be hung as an appendage to it, the whole weight being supported by the straps under the chin and the back of the head.

Independently of the objections that may be made to the pain which necessarily attends the operation of the instrument, when applied in the manner supposed to be necessary to stretch the spine, it may be stated, that there is no longer any exercise of those muscles by the action of which the spine is supported in a state of health; and consequently, they become gradually weaker, and every day less able to support the spine.

As a natural result of this, we find, after the instrument has been worn for some time, that either it, or a machine similar in effect, is indispensably necessary to the patient's comfort, unless the spine has become a solid and immoveable column, by the process of anchylosis." 164.

The objection, that these machines distort the pelvic bones is not well founded, in Mr. Shaw's opinion. But they certainly have some effect in producing distortions or changes of form in the face. The grand question is, the curability of disease by wearing such machines. The only answer Mr. Shaw can give is this—that he could offer instances of persons who are still wearing the collar, although it is more than twelve years since its first application—and of others who have given it up, and are now more distorted than they were before. Still these instances of failure do not disprove the occasional utility of the machine. Certain cases of disease of the vertebræ may, he thinks, be benefited by the collar, and in the chapter on treatment, Mr. Shaw himself proposes an instrument on the same principle, but more simple, as necessary to the cure of lateral curvature.

In respect to the *stretching chair*, Mr. Shaw considers it as not entirely devoid of danger; for the windlass by which the crane is elevated, and to which the patient's head is attached, is so powerful, that it might almost tear the head from the body.

"This apparatus is occasionally used, but not so frequently as the rope and compound pulley, which is also so powerful that a grown-up person can be easily raised from the ground by it. This is used not only to raise patients from the ground, but to suspend them for some time. Until I saw several patients undergo this experiment, I could not believe that it was ever put into practice, for it is quite obvious, that while a child is suspended by the chin, the ligaments of the neck must be stretched to a dangerous degree, while the lumbar portion of the spine, where the principal curve generally is, is scarcely affected." 175.

Still the plan of stretching the spine, under certain regulations, is not objected to by Mr. Shaw—on the contrary, one of his own measures for curing distortion rests on this process.

The plan of carrying a weight on the head, as proposed by the late Mr. Wilson, is considered by our author as a useful adjunct in slight cases, but not effectual by itself in curing distortion. If a light weight be used, scarcely any harm can ensue, "but if even a few pounds be not carefully adjusted on a particular part of the head, the sterno-cleido mastoidei muscles, and others on the forepart of the neck, are liable to be brought into too much action. If too great weight be placed on the head there is danger, he avers, not only of the lumbar part of the spine being carried inwards and bent, but even of the pelvis being diminished, in consequence of the two last lumbar vertebræ and the upper part of the sacrum being driven inwards. It appears indeed that Andry, Pro-

fessor and Dean of the Faculty of Physic of Paris, (1723) lays down, in a little work entitled *Orthopædia*, directions for this mode of curing distortions. He advises, that a powder-box or other light article be placed on the child's or person's head, and that he be directed to walk about, taking care not to let the article fall off; by which process the spinal muscles will be daily exercised.

Exercise. No single method, our author observes, of treatment is so effectual in counteracting or curing slight distortions of the spine, as properly regulated exercise. The indiscriminate use of violent exercise, however, in every kind of distortion, must be productive of much mischief. In anchylosed spine, the part which is ossified is far more liable to fracture than that which is not anchylosed.

"When there is only a degree of lassitude, and before distortion has actually taken place, a variety of exercises are safe and useful; but when the spine has become in the slightest degree distorted, it is unnecessary to pay strict attention to the effects produced* by each kind of exercise." 187.

We now come to Mr. Shaw's own principles of treatment; but fear we shall not be able to give any thing like a clear idea of this part of the work, on account of the numerous diagrams introduced to elucidate the mechanical exercises proposed or recommended by our ingenious author. He observes, and not without reason, that "the modes of practice for the cure of distortions should be as numerous and as varied as the causes upon which the different cases depend." But this is not all. "In each case there are so many distinct stages, that during the progress of the treatment it is sometimes necessary to use means which appear opposed to each other in principle." This is sufficiently discouraging; but Mr. Shaw hopes that the pathology of the disease has been so enumerated as to enable the reader to comprehend the principles upon which the modes of practice proposed are founded.

Our author remarks that, if a lateral curvature of the spine be observed at its commencement, it may easily be cured; but parents too often neglect the distortion or take improper means to remove it, till it has proceeded to a considerable extent.

"For example, if one shoulder projects rather more than the

"* It is by attention to this, that Mr. Jenkins, the celebrated teacher of dancing, has been so successful in preventing, and even in remedying, slight degrees of distortion."

other, or if one side seems a little larger than the other, a pair of stiff stays and a collar to brace the shoulders back are immediately applied; and this plan is persevered in, for every person in the family is delighted to see how much the child's figure is improved. But although the evil may be concealed for a while, its cause is increased by wearing stays or a collar, for the child can no longer take that sort of exercise which is necessary to keep the muscles of the spine in such a state of activity, as to fit them for their several uses." 191.

It has been remarked by old and intelligent people, that deformity is much more common now than thirty years ago; and the reason they assign is, that it proceeds from too much care being taken to preserve the shape. This our author believes to be partly true.

"But this is not the only cause; for it must be admitted, that more attention is now paid to the various accomplishments of writing, drawing, and music than formerly; and consequently girls are more liable to be kept in positions which are prejudicial to the shape. If a girl is naturally strong, and is permitted to have enough of active exercise, she may counteract the ill effects of long continuance in a bad position; but if she be weakly, and have not proper exercise, the lower part of the spine must yield to the weight of the upper part of the body. Taking this view of the causes of distortion, I would concur in part with the opinion of those who believe that stays are useful: however, they should be worn only by weakly children to prevent the spine from sinking while they are obliged to sit up; for stays will never cure a distortion, nor give strength to the muscles. We have only to observe the fine figures of the peasant girls, to be convinced that stays are not absolutely necessary; but if children are brought up artificially, they must have some artificial support." 197.

Our readers are aware of the remarks which Mr. Shaw has made on the bad effects of malposition and sedentary habits among weakly young ladies, and these should be counteracted as speedily as possible by the medical attendant. After commenting on many of the injudicious or injurious means which have been invented to keep the head back in those who are inclined to stoop, our author introduces an illustration which we think contains much ingenuity and good reasoning. We shall give an extract from the work containing this illustration.

"However, although the collars and the lead weight, as they are generally used at present, are not only inefficacious but even hurtful, they may be of considerable use in keeping the shoulders in a certain position, after they have been brought to it by such exercises as tend to strengthen those muscles of the back by which the shoulders and head are naturally supported. But so completely do

I differ from the opinions commonly entertained, as to the means of counteracting a habitual stoop, that I would almost recommend the position of a tailor sitting on his shop-board, as more advantageous than the systems generally followed. This at first appears ridiculous; but the manner in which a tailor holds his body when he walks, proves that there is something in his habits which tends to the correction of a stoop; for he is quite a caricature of a strutting erect figure, especially in the way he bends in his loins, and carries his head.

"The peculiarity of the tailor's gait depends in a certain degree on the bent position in which he sits; but this explanation is not at first satisfactory, since it may be observed that other tradesmen, who also stoop while at work, generally have their head inclined forward, and have also a distinct and habitual bend in the neck; such, especially, may be seen in persons who sit at the table and stoop forwards, as watchmakers, engravers, &c. It is not difficult to explain the cause of the difference, and the inquiry will assist in directing us to the principles which we ought to recollect in our operations upon the spine.

"In the sitting position of the tailor, the head hangs so low, and so complete an arch is formed between it and the pelvis, that the muscles of the spine are called into strong action to support the head; the necessary consequence of this is, that these muscles become even unnaturally strong, or at least so as to predominate over those by which the spine is pulled forward. But the bent position is not the only cause of increase in the strength of the muscles, for it depends also on the exercise given by frequently jerking the head backward. In those who stoop from the middle of the body, as in writing or working at a table, the muscles of the spine are not called into similar action; for while the head is in this position, it rests or is supported by the ligamentum nuchæ. The ligament being thus kept constantly on the stretch, becomes lengthened; and hence the stoop is increased. When this is combined with the consequences of the want of muscular action, the deeper ligaments which bind the cervical vertebræ gradually yield; if the operation of these causes continues for a certain time, the vertebræ themselves become altered in shape, and consequently an almost irremediable stoop is produced.

"These ideas are corroborated by what may be observed in the shape of the tailors in some parts of Germany, who instead of having the erect figures of London tailors, are quite bent. On inquiring into the cause, we find, that instead of their sitting as tailors do in this country, a hole is cut in the table, and a seat is placed within it; so that their position while working becomes nearly the same as that of persons who sit at a table." 209.

Although it would be ridiculous to propose the position of a tailor to a young lady with stoop shoulders, yet Mr. Shaw has found it useful, in very young patients, to put all their playthings on the ground, recommending them such games as may induce them, while sitting, to bend the body

and raise the head alternately. In patients farther advanced, much benefit has been derived from the use of an instrument which was planned for bringing the muscles of the spine into action. We shall give the description and plans of this apparatus, as we find them in the work.

"There is a sketch of the application of the apparatus in the seventh plate. It consists of an upright rod, four or five feet high, and similar to the pole of a common fire-screen. In the upper part of the rod a small wheel is placed, and about sixteen inches below the wheel, a lever eleven inches long is *let in*, and moves upon a pin; the opening in the rod being so cut as to permit the lever to rise and fall. To the end of the lever a certain weight is attached. This apparatus may be fixed by a small wooden vice to the table, directly opposite to the girl as she sits at her lesson, or at work. A riband with a loop or ring in front, is to be put round her head; a silk cord is to be attached to the loop, and is then to be carried over the wheel in the rod, and to be fixed to the end of the lever, the cord being so adapted that when the girl is sitting quite erect, the lever is raised as high as possible. As long as she sits erect, the lever being kept up, there will scarcely be any weight dragging upon the head; but if she stoops or lets the spine fall to one side, then the cord is relaxed and the lever falls; and by the consequent increase of the power of the weight, the force becomes considerable. To relieve herself from the constant pull, she is obliged to sit upright; and by the exertion to counteract the force of the weight when it falls low on the scale, the muscles by which the spine is naturally kept erect, are much strengthened. This instrument is very manageable; by moving the cord back upon the lever, the force or weight will be much increased, while by keeping the cord attached to the end of the lever, and moving back the weight, the force will be diminished. The adjoining plans will assist in the demonstration of the uses of the apparatus.

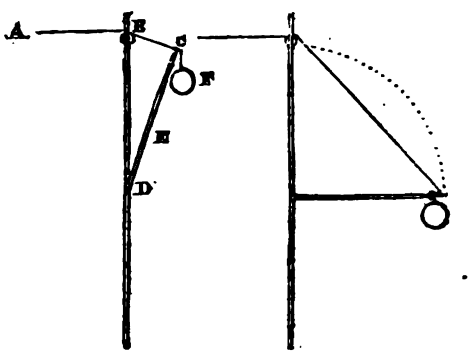
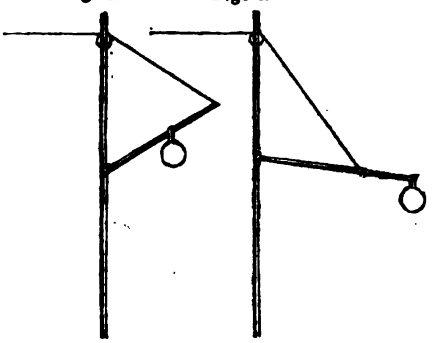


Fig. 3. *Fig. 4.*



"The cord A passes over the pulley B, and is attached at C to the end of the lever E, which moves upon a pin in the upright rod at D. To the end of the lever the weight F is hung. It is evident that as long as the lever is in the position of fig. 1, there will be little difficulty in supporting the weight by pulling upon the cord; but as the lever falls to the position in fig. 2, the force required will be in proportion to the distance it reaches down the scale. Without increasing the size of the weight, the force may be greatly augmented by moving the cord back upon the lever, as in fig. 4; and if we wish to diminish the force, it is only necessary to change the place of the weight, as in fig. 3." 214.

Some other apparatus are described by our author; but the principle is to give the muscles of the spine alternate exercise and repose. Balancing a light weight on the head is useful. As there are generally several curves in the spine, in cases of distortion, care must be taken that the exercise which is useful in counteracting one, may not have the effect of increasing another. Any person, however, who is at all conversant with the mechanism of the spine, must be able to judge of the proper exercises in such cases. One kind of exercise may be useful in all distortions, and can be injurious to none—"*it is the act of bowing the head as low as possible, and rising slowly with an exertion.*"* It is very easy to employ an apparatus that may increase the effect of this mode of exercise.

"Previous to describing the means that are necessary to cure a confirmed twist, I may state, that although, in slight cases, properly regulated exercises are very beneficial, still comparatively little good will be derived from them, unless strict attention be at the same time

* Does the common usage of the above practice among our *northern* neighbours in this country conduce to the straightness of their spines? *Rev.*

paid to the patient's manner of sitting and standing. Particular care ought also to be taken that she should not lie crooked in bed, and that she should use a mattress instead of a feather-bed, with the head as little elevated as possible. Although the practice followed of confining patients with slight distortions to the inclined plane for months, without intermission, has been shown to be bad, yet, lying for a certain time on the plane, and especially after having gone through the proper exercises, is of the greatest use to those who are slightly distorted. With reference to the question of the propriety of rubbing, or shampooing, I would say that it is a species of exercise, of which a patient cannot have too much." 221.

Treatment of confirmed Lateral Distortion. Mr. Shaw commences this chapter with some useful directions respecting the examination of spinal distortion, with the view of ascertaining whether it depends on a specific disease of the bones, or on general constitutional debility. We should, for instance, inquire whether the patient suffered any severe illness during infancy? What was the condition of her first set of teeth? Whether she had ever been liable to swellings in the neck? At what age the distortion was discovered, &c. We are next to examine the form of the head and face, and whether the thighs and bones of the leg are perfectly straight.

"In examining the spine, we should request the patient to stand in the position she is most accustomed to; and, after looking at the general form of the spine and chest, we should mark the situations of the spinous processes of the several vertebræ, by dotting the skin over them with ink or rouge, at intervals of about an inch.* The patient ought then to raise herself with an exertion, and while she stands fairly on both feet, and as erect as she can, we should observe whether the positions of the spots, by which the situations of the vertebræ were marked, are altered. We may now request her to stoop forward, and to bend the spine as much as she can. While she stands so, we may, by rubbing firmly with the point of the finger upon the spinous processes, make a red line along the course of the spine. This may be the first thing done, or the apices of the spinous processes may be dotted with ink, while the body is bent as much as possible; the intention in marking the back, being not only to show the exact situations of the several vertebræ, but also to assist us in ascertaining whether the curves can be affected by a change of position.

"If the spine be made straight by the patient endeavouring to stand erect, or if the lateral curves are lessened by the bent position, we may consider the case favourable.

"We should not omit to inquire whether any pain is felt, when

* "If the plumb-line is used in the manner described at page 112, a correct idea of the deviations of the spine may be easily formed."

particular vertebræ are pressed upon. If the patient complains, (which on the first examination she is very apt to do,) we should try whether rubbing on any other prominent bone is equally painful.

"By the above manner of conducting the examination, we may gain nearly an accurate idea of the state of the vertebræ; but the characters of the curves will be more satisfactorily ascertained by elevating the head so as to stretch the spine. If the patient is very young, a servant standing on a chair, may raise her by the chin and back of the head; but it is more convenient to use a double pulley, which, by a simple contrivance may be temporarily fixed to the top of a door.

"The patient should sit on a chair, and the cord being fixed to soft straps under the chin and back of the head, is to be steadily pulled (by the surgeon) so as gradually to elevate the head. This should be done with great nicety and gentleness, as there may possibly be anchylosis between some of the vertebræ. The symptoms of inflammation or caries of the spine are so distinct, that no surgeon could mistake them for those of lateral distortion; and consequently would never propose to examine a spine so affected, in this manner." 225.

If the patient be laid at full length on a plane surface, and the position of the heels compared, one leg will *appear* longer than the other—the apparent difference being a consequence of the position into which the pelvis is thrown by the curve of the lumbar vertebræ. A patient with distorted spine generally walks in a peculiar manner, one side being carried rather before the other.

"In considering the possibility of curing a distorted spine, it may be stated, that if the patient is young, and if there be no anchylosis, nor any symptoms of rickets or disease of the bones; if the cervical or upper dorsal vertebræ are not so much distorted as to form a large swelling on one side of the neck, and if the middle of the ribs are not yet become angular, we may safely promise to make the patient much better; but in justice to ourselves, we ought to state that all our attempts will be ineffectual, unless the patient assists by submitting cheerfully to the rules laid down. A girl, even so young as thirteen, with a distorted spine, has no time to lose, and if she expects to have her shape restored, she must consider the attempt to remedy it, as her sole object for many months.

"There is one argument in favour of making the attempt as early as possible, and the correctness of which is established by every day's experience;—after a distortion has proceeded to a certain extent, it becomes rapidly worse, if neglected or mismanaged; and the longer it continues, the less susceptible it is of remedy." 230.

The objects which our author proposes to attain by combining the various remedial agents, are the following:—

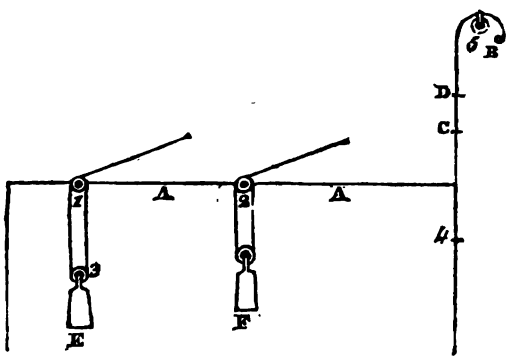
First, to act upon the spine so as to alter the present position of the vertebræ, and consequently of the ribs and shoulders.

Secondly, to keep the vertebræ in their new and improved position.

Thirdly, (the most important object) to bring the muscles of the back into such a condition that they may, after a certain time, be capable of retaining the spine in its natural position, without the aid of any natural support.

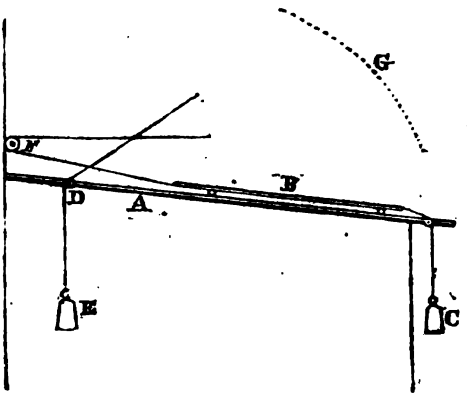
For the attainment of this last object, all the different means of excitement, as friction, shampooing, pressure, percussion, &c. are useful, and these processes should be superintended by the surgeon himself.

In addition to, or instead of, the apparatus already described for exercising the spinal muscles, Mr. Shaw recommends another, which is, he avers, very convenient. "Indeed so many exercises may be performed with it, as to make it useful in almost every stage of distortion, and it, at the same time, forms a better reclining board than those generally used." We shall here introduce two sketches of the apparatus recommended by Mr. Shaw.



Upon the frame of a sofa the board A is placed. It is now horizontal, but may be made an inclined plane by raising the end to C or D. The patient should stand at the upper end of the sofa, and lean over it. With a band fixed to the head, she should raise the weight E, until her body becomes erect; she is then to bend the head, so as nearly to touch the board, and to go on for some time, alternately rising and stooping.

As it is difficult to induce patients to persevere in the performance of one exercise, Mr. Shaw has endeavovred to contrive a variety of them to effect the same object. By means of an additional board to the plane (which is absolutely necessary to it as a stretching or reclining board) a number of useful and amusing exercises may be performed.



"No. 2 is the plan of the most simple form. Upon the plane A, which is considerably elevated, there is the moveable board B. If the patient sits upon this, and pulls upon a piece of wood attached to a cord, which, after running through a pulley, F, is fixed to the board B, she will draw up the board; and if the arms be at the same time kept at full length, the body must fall back in the direction of the dotted line G, thus acting upon the vertebræ of the loins. The power required to raise the board, will depend on the degree of the elevation of the plane, and on the weight C. This exercise is very good for the curve in the loins, but it produces little effect on that, in the upper part of the spine. This, however, is easily effected, by putting in a pulley at D, and raising the weight E with the band round the head." 236.

By friction, shampooing, and some of the above exercises, the muscles of the spine and the ligaments of the vertebræ are rendered more supple, or brought into a very advantageous condition for being stretched. Were we now to raise the patient by a cord and pulley, we should find it much more easily done than before the exercises were used; and if after this the *collar* be applied, much good, in Mr. Shaw's opinion, may be effected. But it will probably be a better plan, after so much fatigue, to let the patient rest—especially if means be employed for the purpose (as may easily be done) of stretching the spinal column, while in the recumbent position. Here Mr. Shaw introduces various proposals and some sketches of apparatus for the purposes in question, but we must refer our readers to the work itself for further particulars.

"In describing the means of preventing or curing slight distortion, I stated the importance of attending to the manner in which a patient lies while asleep; it is still more necessary to attend to it in a case of confirmed curvature of the spine.

"Patients in this condition are desired never to sleep on a feather-bed, but on a firm hair mattress, and without a pillow. So far, the

advice is good, and can be followed; but the order to lie in a particular manner is almost useless; for although a child may be put in a proper position before going to sleep, she will be found in another, in the course of an hour. It being essential that the patient do not lie in a crooked position during the night, some means must be used, by which the pelvis and shoulders may be prevented from approximating. This may be effected by common stiff stays; but the use of the steel supports is preferable, as they may be put on sufficiently tight without compressing the chest. The patient, as may be expected, does not find them comfortable at first, but after they have been used three or four nights, seldom complains of them." 253.

Mr. Shaw thinks that, had it not been for the idea so generally prevalent, that lateral distortion depends on rickets, or on a softening of the bones, the examples daily afforded us of the activity and strength of distorted persons, in the lower ranks of life, would have led to rules of practice very different from those now followed in the treatment of such cases. The dread that deformity of the pelvis would result from the use of instruments is, Mr. Shaw observes, chimerical;—and so is the fear that the bones, in their supposed softened condition, would be twisted by muscular exertion. These erroneous opinions have doubtless prevented many cures, and rendered many a patient miserable for life.

The work concludes with an appendix, containing a short descriptive catalogue of the specimens of distortion and other diseases of the spine, in Mr. Charles Bell's collection.

We need not offer any opinion on Mr. Shaw's work, after the copious extracts, and the general view of it which we have laid before our readers. We imagine that from this specimen of our author's pathology of the spine, in lateral curvature, the profession will look forward with pleasure to the forthcoming volume on other diseases of the vertebral column.

IX.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING THE

Spirit of the Public Journals,

FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriri oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.

IT is now nearly six years since we first projected the PERISCOPE, a department that has proved extremely useful, and has been adopted to a greater or less extent, and under various denominations, by many of our cotemporaries in this and foreign countries. If it was a useful feature in our Journal then, it is indispensably necessary now, when periodicals have multiplied at least fourfold in the short space of half a dozen years.* It is now utterly impossible for any individual, or even society of individuals to take in, peruse, or even see, one half, or one fourth of the British periodical journals and transactions, which roll, like a torrent, from the press. A time has come when each individual and society must make their selection of one or more journals, trusting to these for some knowledge of what is going forward in the countless host of others, foreign and domestic. As the present number of our Journal concludes the fourth volume, and as the next number (while by means of a spare title page it may form a continuation of the present series for all those who hold it)

* When we commenced the Quarterly Medico-Chirurgical Journal, in 1818, there were but *two Medical Journals* then in London. There are now a dozen, if not more. Some of them, though regularly published, we have not yet been able to see, excepting through the newspapers. We shall here endeavour to give a list of them, with their prices. *Quarterly.*—The Quarterly Journal of Foreign Medicine, &c. by Anderson, 4s. 6d. The Med. Chir. Review, 6s. *Monthly.*—The London Medical and Physical Journal, 2s. 6d. The London Med. Repository, 2s. 6d. The Medical Intelligencer, 1s. 6d. The Journal of Public Health, 1s. The Oracle of Health, 1s. The Gazette of Health, 1s. *Weekly.*—The Lancet, 6d. The Medico-Chirurgical and Philosophical Magazine, 4d. The Scalpel, 4d. The Medical Adviser, 3d. Several others, we understand, are ready to appear!

will be the first of a new series, for the accommodation of new subscribers, we are desirous of drawing the attention of our readers to the future plan and execution of our *Periscope department*, as exemplified in the specimen presented them this quarter. We think that the condensed mass of practical and curious matter which we are enabled to dispense by means of the present construction of the Periscope, will merit approbation of our labours, and tend not a little to the benefit of our brethren, both at home and abroad. We shall say no more—but leave the result to the impartial examination and verdict of the public.

☞ We may be permitted to state that although we think there is some advantage to be derived from classing our subjects under the heads Pathology, Physiology, Therapeutics, &c. yet we do not consider it as of any consequence which should have the precedence. We merely place Pathology at the head, as one of the most important of our investigations in the present state of medical science.

I.

PATHOLOGY.

1. *Observations on Inflammation of the Diaphragmatic Pleura.* By M. Andral, Jun.*

Whatever difference of opinion may exist respecting the possibility of distinguishing inflammation of the pleura from inflammation of the lungs, M. Andral is convinced that there are some symptoms which may generally evince the existence of that dangerous malady—*diaphragmatic pleuritis*. Boerhaave defines it thus;—"*Si morbus pleuritide similis occupat eam membranæ pleuræ partem, quæ diaphragma ambit vel et ipsum septum medium, oritur morbus dirus quem paraphrenitidem appellant.*"—Aph. 907. It is evident that Boerhaave here confounds inflammation of the pleura with that of the muscular structure of the diaphragm. The symptoms assigned to the disease by Boerhaave are, acute fever; sharp pain in the region of the diaphragm, grievously augmented by inspiration, cough, sternutation, or attempts to vomit or pass fæces; short breathing, performed entirely by the ribs; depression of the hypochondria; risus sardonicus; delirium; convulsions. M. Andral now proceeds to relate cases of the disease observed in hospital practice.

Case 1. A man, 26 years of age, entered La Charite, in the month of April, 1822, having been seized two days previously with rigour followed by febrile heat. In the midst of this last he felt an acute pain in the left hypochondrium along the margins of the false ribs, accompanied by much oppression. Hot fomentation externally, and spirituous potations internally, had no effect in dissipating this

---

* Archives Generales, October, 1823.

pain. He passed the night in great pain, and without sleep, having some hiccup. The succeeding day was also passed in pain, increased dyspnœa, frequent cough. On the *third day* he was seen by the reporter, who found him sitting up, and bent forward, with his hand constantly pressing on the hypochondrium, which was very tender to the touch. His countenance expressed the utmost anxiety, the inspirations were short, the cough frequent without any expectoration. No information could be gained by percussion or auscultation. The pulse was very quick and hard—the skin dry and burning. The intellectual and digestive functions were unimpaired. M. Lerminier suspected diaphragmatic pleuritis, and bled the patient to *twelve ounces*, after which twenty leeches were applied along the edges of the false ribs. In the course of the day, there was some diminution of the pain; but in the night it returned with increased intensity, accompanied by delirium. On the morning of the *fourth day*, the delirium subsided, but the pain and orthopnœa persisted—the pulse had lost nothing of its frequency or hardness—there were some transient convulsive movements of the muscles of the face. *Venesection to twelve ounces*—reapplication of twenty leeches to the side—diluents. Remission of the symptoms this day—an exacerbation of them all at night, with delirium. Sinapisms to the legs. *Fifth day.* Continuance of all the symptoms, with the addition of constant nausea. Blister to the neck. *Sixth day.* Great change in the countenance—lies on his back—voice extinct—hiccup. Died in the evening.

Dissection. The pleura covering the base of the left lung, and that opposite to it on the diaphragm, was strongly injected, and coated with an albuminous exudation, filling up the space between the two portions of pleura. All other parts of this membrane and also the lungs were sound, as were the heart, pericardium, substance of the diaphragm, abdominal and cranial organs.

That this was a well-marked case of uncomplicated diaphragmatic pleuritis, there can be no doubt. It affords a very fine example of the extensive influence which even a partial inflammation of a serous membrane exerts over the nervous system and various functions essential to life. Here, death was occasioned by the *functional* derangement of the circulation and respiration, induced by a very circumscribed phlogosis of the pleura. That life might have been preserved by any thing like active treatment, there is every probability. It is not a little surprising, that so late as 1822, M. Lerminier, a celebrated hospital physician of Paris, should allow a young man of 26 years of age to die of most acute pleuritis without abstracting more than 24 ounces of blood from the arm, at *two bleedings*, separated by a period of twenty-four hours! It is evident that the patient should, in the first instance, have been bled to syncope, or relief of the pain—and that, instead of allowing the evening exacerbation to raise and ravage through the night unchecked, the patient should have been watched, and bled as the symptoms increased in violence. No purgatives, no antimonials were employed—in short, if M. Lerminier had wished to make his diagnosis turn out precisely what he had said, he could not have taken a

more effectual method of accomplishing it than that which he pursued. The case affords an instructive lesson, however, to the junior practitioner.

Case 2. A tailor, 31 years of age, had for two years past been subject to repeated attacks of hæmoptysis, with habitual dry cough, and slight dyspnœa. On the 5th October, 1821, after getting wet with rain, he was seized with acute pain about the scrobiculus cordis, which obliged him to sit in a bent position forwards, and greatly incommoded his breathing. He applied a dozen of leeches to the part, and the pain subsided. Next day it recurred at intervals. On the 7th October, he was awakened, at three in the morning, by a violent pain stretching along the cartilages of the false ribs on the right side, and extending into the hypochondrium, of that side, accompanied by malaise, constant attempts to cough without power to do so freely, occasional vomitings. On entering the Charite, on the morning of the 8th October, the patient presented the following symptoms—pallor of the face, great anxiety in the countenance, short breathing performed by the ribs, constant short cough, pain at the place above mentioned, exasperated by pressure. Pressure on the epigastrium excited nausea and hiccup. The patient would not permit himself to be moved in the least degree—fever intense. Thirty leeches were applied to the right hypochondrium. On the 9th October, the pain excessive—venesection to *eight ounces*—twelve leeches to the epigastrium. In the course of the day, the pain in the epigastrium subsided, but that in the hypochondrium continued—breathing a little relieved by the bleeding. 10th October, an icteritious tint on the surface—in other respects the same. 11th. Pain relieved, breathing freer, cough not so urgent. In the evening exacerbation of the pain and all the other symptoms. Had bilious vomitings this night. 12th. Features contracted, some slight convulsive movements in the muscles of the face—orthopnœa—pulse quick and concentrated—skin hot—jaundice complete. Venesection to eight ounces. In the course of the day there was delirium. 13th. The pain not much complained of, except when coughing; but the breathing is greatly embarrassed, the pulse the same as before. The symptoms went on gradually increasing till the 21st October, when the patient died.

Dissection. The base of the right lung was separated from the diaphragm by a sero-purulent effusion, circumscribed in extent by membraniform concretions extending from the diaphragm to the lungs. This effusion had displaced both the lung and the liver. The other parts of the pleura were healthy—lungs interspersed with numerous miliary granulations—heart and pericardium sound, as were the abdominal viscera. The arachnoid membrane showed signs of phlogosis, and there was some white serous effusion in the ventricles of the brain.

The same observations which we made on the first case will apply to this one. More active treatment might not only have prevented the sero-purulent effusion in the chest, but the supervention of the arachnitis, which was doubtless the ultimate cause of death.

The above are the only unequivocal cases of diaphragmatic pleuritis

which our author has brought forward. The others are complicated with inflammation of the lungs or other portions of the pleura, and need not occupy our time here.

---

2. *Encysted Tumour.** A curious case lately occurred in the practice of Dr. Gregory. A woman applied at the dispensary, on the 3d of October, 1823, complaining of pain in the abdomen, quick pulse, foul tongue, frequent discharges of wind, great weakness of the legs and thighs. These complaints were of four months standing. In the lower part of the abdomen a firm swelling was discovered, but without fluctuation. On the 14th of the same month, Dr. G. visited this woman, and found the symptoms much aggravated, the pain being excruciating, and the abdomen much enlarged, tense and tender, with difficulty of breathing. Cathartics gave some relief, but on the 16th the symptoms all returned. Some fluctuation was now perceived, and on the 21st a trocbar was pushed into the swelling, and about five pints of a transparent, brownish-coloured fluid were slowly drawn off. But it was evident that there was a large tumour within, untouched by the trocar. The relief obtained was trifling, and the poor woman was worn out with pain and irritative fever. She died on the 29th of October. The body was opened by Mr. Jeffreys next day, in presence of Dr. Gregory, Dr. James Johnson, and several other medical gentlemen, when the following appearances presented themselves.

"On dividing the abdominal parietes, a large firm tumour, of a black colour, was brought into view, attached by slight, and probably recently effused, bands of coagulable lymph, to the peritoneum lining the abdominal muscles. These adhesions were less firm towards the posterior part, so that, after separating the tumour from the parietes of the abdomen, it readily *turned out*, as the yolk of an egg separates from the white. This tumour occupied nearly the whole of the abdominal cavity from the ensiform cartilage to the pelvis, and was every where of a very dark colour, almost black. When cut into, it was found to contain a large quantity of a thick, fetid, chocolate-coloured fluid. The walls of the cyst were of unequal thickness: in many parts they were not less than two inches thick. Its external surface was *every where smooth*, making allowance for a loose covering of coagulable lymph. The internal surface of the coats of the cyst was rough and irregular. Its texture was throughout soft, spongy, and *rotten;* and, by many gentlemen present, was compared to that of a putrid placenta. Its whole weight, including that of the contained fluid, may probably have somewhat exceeded twelve pounds.

"The uterus and its appendages were now cut out, and carefully examined. Both ovaria were found in a perfectly healthy state; and the uterus itself was free from disease.

---

* Dr. Gregory. Med. and Phys. Journal, No. 293.

"The tumour being removed, gave us an opportunity of seeing that the peritoneum covering the bowels, liver, and other viscera; was every where of the same dark colour as the surface of the cyst, and it was in all parts covered with the same shreds of coagulable lymph as were witnessed in the tumour. The intestines were loosely glued together, and their coats appeared preternaturally thickened. The liver internally was of an ash-colour and unhealthy texture. The stomach was not more than usually distended.

"The heart and lungs were free from all traces of disease."

We think there is great reason to believe that the above cyst was a solitary hydatid, whose parietes were, in several places, in a state of disease.

---

3. *Fever in the Bann and at Ascension.* Our readers are aware that we have always advocated the doctrine of "*contingent contagion*" in yellow fever—and indeed in most fevers. We have always stood aloof both from Dr. Bancroft on the one extreme, and Dr. Pym on the other; considering the exclusive doctrines of contagion and non-contagion as equally erroneous. That the yellow fever of the West Indies, and of countries whose temperature occasionally rises to the tropical degree, is rarely contagious, *under common circumstances of cleanliness and ventilation*, is as well ascertained as any fact in medicine. But that the same fever, under opposite circumstances of crowding, &c. may, and does, become contagious, is also proved by unquestionable evidence. The following case is that which has furnished Sir Gilbert Blane with materials for a letter to the Lords Commissioners of the Admiralty respecting the contagion of yellow fever. Early in the year 1823, the Bann sloop of war was much employed on the coast of Africa in searching for, and boarding, slave ships, many of whom were very sickly. A few days before the Bann sailed from the coast, she had free communication with the Caroline, timber ship, whose crew had been almost entirely swept off by fever. There was, also, an unprecedented mortality among the troops and settlers on the coast at this time. The Bann sailed from Sierra Leone in the latter end of March, 1823, and in a few days afterward, a fever broke out, of a very malignant nature, wearing the general features of the endemic fevers of the West Indies and other similar climates. During the voyage to Ascension, of less than a month, the fever prevailed throughout the crew, and the sick were greatly crowded in consequence of the deluges of rain which fell on the passage. In this time thirteen men died, and twenty afterward at Ascension. She landed her sick at the last-mentioned place, on the 25th of April, at which time the garrison was healthy. Some precautions, but not of a very rigid kind, were taken to prevent intercourse between the Bann's crew and the garrison; but notwithstanding this, the fever broke out about eight or ten days after the landing of the sick, and prevailed very generally through the small garrison on the island, of whom twenty-five died. We have seen all the documents respecting this unhappy occurrence, and can entertain no doubt of the contagious nature of the fever, and its communication

to the garrison of Ascension. We have carefully perused the surgeon's journal of the Bann, and the only doubt in our minds is respecting the real nature and origin of the fever. The general features, as we before said, were those of the endemic fevers of hot climates; but the question is, whether a contagious fever might not have been carried from Malta, (whence the Caroline sailed for Sierra Leone,) and there, under a vertical sun, have assumed the garb of the fevers of the climate, with the power of propagating itself to the crew of the Bann, and so on? This, however, we only throw out as a query, professing our entire conviction that it was imported into Ascension through the medium of the Bann's crew. We are, indeed, more inclined to believe that the fever was originally produced by general causes on the coast of Africa, and acquired the dangerous property of contagion during the crowding of the sick on the passage to Ascension, from certain authentic intelligence which we have recently received from the West Indies. The account will probably be published, and, therefore, we shall no farther anticipate it than by stating a very few of the particulars. A British sloop of war lying in Antigua harbour began to show symptoms of the endemic fever of that unhealthy spot. She was, contrary to the surgeon's advice, hurried out to sea, and there the fever became general among the crew, evincing, at last, from the crowded state of the sick, a decidedly contagious character. They were obliged to land on a small desert island on the coast of America, and even *there*, some strangers that visited the tents of the sick caught the fever. We mention this fact to show the impropriety of sending ships out to sea with a fever on board. Had the sick men of this sloop of war been landed at the hospital in Antigua, not a particle of contagion would have been evinced, and many lives would have been preserved. Finally, we may be permitted to reiterate our belief that contagion is an accidental adjunct to yellow fever, and by no means an essential part of its character. It is the child of circumstances.

---

4. *Hydrophobia.** It has been known, for a considerable time past, that Marochetti described pustules which he said rose under the tongues of people bitten by rabid animals, the opening of which, in conjunction with decoction of broom, he considered as a security against the disease. Little credit appears to have been given to this story in England; but, in the September number of the Journal General de Medecine we find an apparently partial confirmation of Marochetti's assertions, and we, therefore, deem it proper to notice the statement.

On the 12th of October, 1822, several people and some sheep were bitten by a rabid dog at Boulay and the vicinity. M. Magistel cauterized the wounds, and kept a look out for the pustules above mentioned. In several instances he did observe these sublingual pustules, some appearing on the 6th day from the bite, some later,

* M. Magistel. Journal General de Medecine, September, 1823.

and the latest on the 33d day. He describes two species, the crystalline and the opaque—the *former* prominent, rounded, the size of a hemp-seed, being transparent, and containing a colourless aqueous fluid. The opaque pustules, on the other hand, are flat, circular, and the size of a lentil, covered by a brownish pellicle. The first species appear on the inferior superficies of the tongue—the second imbedded, as it were, in the lingual substance. Both species are situated chiefly on the sides of the frenum linguæ. All those who were bitten exhibited the opaque species of pustules. Not so with the crystalline. The cautery soon cured both species. The decoctum genistæ was carefully administered, and employed also as a lotion to the wounds. Of ten who were bitten, and attended by M. Magistel, five died hydrophobic. The prevention, therefore, of hydrophobia, by cauterizing the sublingual pustules, is not confirmed. But it is a curious phenomenon, the appearance of the pustules in such a situation, and deserves to be further investigated, as it may ultimately lead to some insight into the nature of this dreadful disease.

---

5. *Delirium Ebriositatis.** Mr. Blake, while serving in the West Indies, where rum is cheap and deleterious, had opportunities of seeing much of the above complaint. He thinks that Pearson, Armstrong, Sutton, and others, who have written on delirium tremens, have not paid sufficient attention to the *stages*, phenomena, and some of the pathological characters of the malady. Mr. B. divides it into three distinct stages. In ten cases brought forward by our author, the first stage, or that of nervous exhaustion, came on within five days from the admission into hospital, or, in other words, the abstinence from spirituous liquors. The *first stage* was evinced by coldness of the hands and feet—debility, and diminution of temperature—nausea and vomiting—nervous tremors of the hands and tongue—dejection of spirits—oppression at the præcordia—interrupted slumbers—frightful dreams.

As the second stage approached, the countenance became wild—the patient became restless, and quick in his answers, with an anxiety to perform immediately whatever was desired. This stage rarely lasts more than a few hours. This stage once established, a high state of nervous irritation follows. Mental alienation—small quick pulse—increase of heat on the surface—clammy sweats—presentation of frightful forms to the imagination—obstinate pervigilium. When these symptoms have continued one, two, or three days, the solution, if not by death, generally takes place in a strong tendency to sleep, which, as soon as it supervenes, lasts from six to eighteen hours, constituting what our author considers the third stage of the disease—"or general relaxation of the nervous action"—to which, convalescence, in his experience, always succeeded. But where this third or sleeping stage did not take place, the general symptoms increased in violence, the mental irritation became more severe, the patient made

* Mr. Blake. Ed. Journal, No. 78.

made excessive struggles, attended with copious perspiration, at last of a deadly coldness—rapid pulse, and thready—tremor of the whole frame approaching to subsultus tendinum—contracted pupils—pale countenance—brown and dry tongue—incessant muttering. During this distressing scene the patient complains of no local pain; and if asked "how he does?" replies "very well."

The following rationale of the exciting cause is chaos itself. "The *exciting* cause appears to me to be the sudden cessation of the application of such stimuli to the nervous system, (through the medium of the digestive organs,) the powers of which sink to the lowest ebb; and in endeavouring to rally, and establish the equilibrium between the nervous and vascular systems, its efforts exceed the debilitated faculties of the sensorium, and thus excite delirium." If Mr. Blake comprehended his own meaning, it is more than we can do.

When this disease terminates fatally, it does not appear to our author to be owing to venous congestion. He would rather ascribe it to serous effusion. He gives, however, but one dissection in favour of his pathological doctrine. The greater number of those cases, which we have opened and seen opened, presented little or no effusion. Some presented turgescence of vessels; but others a pallor and collapse of the whole vascular system of the brain.

Our author's methodus medendi varies with the stage of the complaint. If we see the patient early before delirium sets in, and where gastric derangement is present, he advises effervescing draughts with ten drops of laudanum every two hours. In the intermediate hours he has been in the habit of giving an ounce of rum with warm water and sugar, together with the warm bath, or tepid or cold effusion according to the circumstances of the case. He permits soup, arrow-root, sago, or other mild nutriment, to be taken in moderate quantities. When constipation prevailed, a drop of croton oil was found a useful medicine. If these means fail in preventing the second stage or that of reaction, then he advises full doses of opium, diffusible stimuli, and antispasmodics. To these he has been in the habit of adding calomel, and Dover's powder, two grains of the former to six of the latter, every two hours, until the system became affected, or the disease yielded. Moral management is properly insisted on; and upon the whole we are inclined to commend Mr. Blake's paper, notwithstanding the confusion of ideas which seems to prevail with our author when attempting an explanation of the morbid phenomena.

---

6. *Scirrhous Cæcum mistaken for Aneurism.** On the 13th of February, 1822, Dr. Beezeley was called to visit a young farmer, 22 years of age, confined to bed with a severe attack of "palpitatio cordis," his pulse beating at the rate of 110 in the minute,—his countenance pale, voice weak, and respiration somewhat impeded, skin moist, headach, bowels costive, occasional sickness at stomach,

* Philadelphia Journal, No. 12, August 1823.

and soreness in the chest, occasioned by the violent palpitations which had lasted about 36 hours. On examination, Dr. B. found a hard and irregular tumour in the right iliac region, "seeming to be made up of two, united by a line running parallel with the linea alba, and extended from Poupart's ligament, to about an inch above a line drawn from one anterior superior spinous process to the other, and from near the ilium to the linea alba, where its outline suddenly receded towards the spine." There was no perceptible pulsation at this time, nor for several weeks afterward. He attributed the tumour to a violent blow from a plough, about eight months previously to the appearance of the tumour. Three months after receiving the blow, he began to be attacked with colic, constipation, and dyspeptic symptoms, for which various remedies were prescribed without success. In progress of time, several physicians were consulted, and as pulsation now became a feature of the disease, it was supposed to be aneurism of the external iliac artery. This belief was strengthened afterward by another tumour, the size of an orange, springing up directly over the aorta, above the umbilicus, which pulsated so strongly, as to be perceptible through the bed-clothes. He died in a state of the greatest emaciation, and the following minutes showed that the doctors were all mistaken in the nature of the case.

Dissection. On opening the abdomen, a large tumour presented itself, stretching from the liver to the iliac region, and extending over the spine into the left. This tumour was found to consist of four inches of the ileum, the whole of the cæcum, and five inches of the colon, in a scirrhous state, the mesenteric glands being, also, greatly enlarged and indurated. There were ulcerations in the interior of these scirrhous intestines, the coats of which, in some places, were more than an inch in thickness.

---

7. *Sudden Death, with fallacious Symptoms.** The great benefit resulting from *post mortem* examinations, consists in correcting the fallacy of symptoms. For if, by these last *alone*, the nature and seats of disease could be ascertained, of what use would be the dirty work of dissection, as far as the physician is concerned? But the fact is, that symptomatology and dissection are, in medicine, what the log-line and lunar observations are, in navigation. Symptomatology is our daily business in the practice of physic, and, without it, we could do nothing. But, every now and then a *post mortem* examination rectifies erroneous judgments which we have made during the life of the patient; in the same way that a lunar observation, when it can be obtained, corrects the fallacies of the log-line, produced by currents and counter-currents, the operations of which were concealed from the mariner's view.

A young man, 24 years of age, of good health and constitution, complained, in the month of January, of slight giddiness in his head,

---

* Journal Général de Medecine, Vol. LXXIII. p. 308.—M. Gaugiran, M.D. of Toulouse.

with a sense of tightness or oppression about the chest, on taking a deep inspiration. His tongue was furred in the mornings, his appetite diminished, and his digestion somewhat depraved. Having gone into the country, he was there seized with vomiting, followed by profuse perspirations. The same thing recurred a few days afterward. He now returned to Toulouse, still affected with nausea and occasional vomitings. M. Gaugiran put him on a rigid regimen and diluent drinks. On the 1st of February, the vomiting returned, not again to cease. Dr. G. now examined his patient carefully. The abdominal viscera appeared in a sound state. He had never, to his knowledge, received any blow or fall on the head. An antimonial emetic was prescribed on the old principle, "*vomitus vomitu curatur.*" The patient vomited a great deal of bile, and also a lumbricus of considerable length. The enemy was now thought to be dislodged; but the vomitings continued with more violence than ever, and neither food nor medicine could be retained on the stomach. Blisters to the epigastrium—opium—assafœtida—leeches to the anus—calomel, &c. were prescribed, but without effect. On the 8th of February, the day on which he died, and now for the first time, the patient complained of pain in the occipital region, which became, in the course of the day, so excruciating, that he could not bear to be turned in his bed. He expired in the evening of this day.

Dissection. Messrs. Delpech, Gaugiran, and Naudin, were present when the body was opened. The brain being exposed, four or five fungous vegetations were seen to spring from the upper part of the dura mater, and opposite to them, were seen corresponding fossæ or depressions in the parietal bones. On the anterior superior part of both hemispheres, there was a morbid adhesion of the dura mater and arachnoid. There was an incipient patch of ossification at the upper part of the falciform process. From six to seven ounces of serum were found in the left lateral ventricle, and between four and five ounces in the right. The sinuses and vessels of the brain were gorged, as if injected, with blood. The mucous membrane of the stomach was phlogosed in a few points; and the liver was gorged with blood, and of a deeper colour than natural.

Dr. Gaugiran is of opinion, that this young man must have received a blow or fall upon the head, at some former period, though he could not recollect the circumstance; and M. Burdin, in his report on the case, is of a similar opinion. We cannot see any reason why there must *necessarily* have been external violence, because there was internal derangement of structure. We believe, however, with M. Burdin, and indeed the present case offers an example, "*that an organic disease of the head may manifest itself during life* ONLY *by functional disorder of the stomach.*" At the same time we apprehend that, in general, an accurate observation of symptoms, and a minute inquiry into the cerebral functions; in such cases, would lead to the detection of the seat of the evil. This case shows the necessity of examining the functions of *all* the great organs, in obscure and anomalous affections. We suspect that such a quantity of water could not have been effused into the ventricles of the brain, in this case,

without some corresponding symptoms—at all events, the doubtful precept—"*vomitus vomitu curatur*," might, in this instance at least, be changed to —"*cephalitis vomitu augetur*." French therapeutics are, in general, experiments in pathology, and the specimens which they thus produce, are far superior to ours, where the ravages of disease are modified, if they cannot be arrested, by the power of medicine.

P. S. The following case, which we have observed in another number of the same journal, bears upon the case just related.

A man, near 70 years of age, who had enjoyed good health for some time before, became affected with periodical vomiting, which returned every day, and sometimes twice a day, without any assignable cause. This vomiting resisted every kind of treatment that was employed by the best physicians in Paris. He then applied to the charlatan tribe, but with no better success. The patient left Paris to return to his native place in the country, having now laboured under the complaint for many months. On his way down, the voiture was upset, and he received a severe and extensive wound in his head; from which a great quantity of blood flowed, not only at the time, but for many hours afterward. The vomiting, from this time, entirely ceased.

Here, we think, there is ground to suppose the real origin of the gastric affection was situated in the head, and, it is pretty evident, that the bungling voiturier proved a better physician than any that could be found in Paris.

---

8. *Pneumo-Thorax.** We are sorry to see the increasing propensity of medical men, to publish their papers in the *Philosophical* Transactions, rather than in the medical transactions or medical journals of the country. They ought to consider that, in the Provinces, not one medical man in five hundred ever reads the Philosophical Transactions—and that, even in the metropolis, not one in fifty does so. Nor do we think the above-mentioned mode of publication adds, in the least, to the respectability of such papers. The Medico-Chirurgical Transactions, the quarterly, and the monthly Journals of this metropolis are respectable enough for any communication that issues from the press. It is true that, through the medium of periodical journals, the professional contents of the Philosophical Transactions are pretty generally circulated through the world; but then it is often in a very curtailed state. There are many subjects, too, of a pure medical nature, which are certainly not adapted for the non-professional readers of the Philosophical Transactions. Of this kind we deem the present paper of Dr. Davy.

A soldier, of middle age, came into the military Hospital of Chatham, in the month of January, 1823, and died on the 11th of February. On proceeding to examine the body, it was observed, that the

---

* Dr. Davy. Philosophical Transactions, 1823.

right side of the chest was much more protuberant than the left, and on percussion emitted a hollow sound. When the abdomen was opened, the diaphragm was seen protruding into the right hypochondrium, in a convex instead of a concave form. By putting the body under water, and then making an aperture into the right side of the chest, 212 cubic inches of air were collected, besides several that escaped. The inner surface of the pleura was covered with a thin layer of coagulable lymph—the lung of that side was greatly compressed, and on being inflated by a pair of bellows, the air freely passed into the cavity of the pleura on that side, through an ulcerated opening in the superior lobe, where a vomica was detected communicating with the trachea by a large bronchial tube. Various small tubercles, in different states of forwardness, were also found in the right lung.

The air extricated from the chest, when chymically examined, was found to consist of 8 per cent. carbonic acid gas, and 92 per cent. of azotic gas. What then had become of the oxygen (supposing it to have been common atmospheric air when extravasated) and whence came the carbonic acid gas?—To determine the former, common air was injected into the pleura of a dog, and the opening closed. After a lapse of 48 hours the dog was killed, and eight cubic inches of air obtained, showing slight traces of carbonic acid gas, and consisting of 93 per cent. of oxygen, and 7 per cent. of azotic gas. This experiment, Dr. D. thinks, appears to show that oxygen was absorbed in a greater proportion than azote, in the case of the dog. In respect to the man, it may be supposed that the carbonic acid gas, as formed in the lungs, had escaped with atmospheric air into the pleura, where it was less readily absorbed than oxygen. To ascertain this last position another experiment was made.

A bladder was filled (about 30 cubic inches) with air, consisting of atmospheric air 80 parts, and carbonic acid gas 20 parts. At one end of the bladder was a stop-cock, and at the other a trocar. The latter was thrust through the integuments of the chest on the right side of a dog—the stilet was withdrawn into the bladder, and the air then rushed through the canula into the thorax, being partly forced back again on expiration: the quantity retained being about ten cubic inches. The canula was then withdrawn, and the wound closed. The health of the animal appearing to suffer but little, the operation was repeated two days after, on the opposite side, the injected air being 75 of common air to 25 of carbonic acid gas. Twenty-four hours afterward the dog was killed, not having appeared to suffer much from either operation. About three cubic inches only of air were found in the *right* side, consisting of 18 carbonic acid gas, 78 azotic gas, and 3 of oxygen gas. The air admitted had consisted of about 20 carbonic acid gas, 63 azotic, and 16 oxygen, showing, apparently, that, during a three days' sojourn in the pleura, the oxygen had been absorbed in a degree greater than the carbonic acid gas, and the latter in a degree greater than the azote. Some other experiments were made, tending to show that the carbonic acid gas was not a secretion from the pleura, but on the con-

trary, showing that this membrane has the power or property of absorbing gases, exhibiting a preference for some over others.

We have given an abstract of the above case and experiments for the edification of chymico-physiological readers—the following will be perused with more interest by our pathological brethren.

Case of Pneumo-thorax. A soldier was sent home invalided from the West Indies for hæmoptysis which had succeeded a severe fall on the left side of the chest received about 18 months previously. He was admitted into the Military Hospital, Chatham, on the 9th of May 1823. On the morning of the 13th, after a violent fit of coughing, symptoms of pneumo-thorax came on suddenly, and continued increasing till the 21st. The most prominent of these symptoms were, sensation of extreme tightness about the chest and abdomen—rapid and difficult inspirations, between 30 and 40 in the minute—great anxiety and agitation of mind—pulse 130—cold sweats—prostration of strength. On examining the chest, the left side was found to be more prominent than the other, and larger in all its dimensions. It was tense, and, on percussion, sounded remarkably hollow and tympanitic. The heart pulsated on the right side under the mamilla. It was determined to tap the chest. A trocar was attached to an empty bladder, and the parietes of the chest perforated between the 8th and 9th ribs. Only about five cubic inches of air rushed out, showing that adhesions probably existed at this point. Next day, another puncture was made below the left papilla, when a large quantity of air rushed out and distended the bladder. When the bladder was removed, air continued to rush from the chest for several seconds, as if from a blow-pipe. When this ceased the canula was removed, and the wound healed. The relief was great and sudden. The patient continued to improve up to the 17th June, on which day Dr. Davy's paper for the Royal Society was closed. At this period the patient's appetite was good—his cough but little troublesome—he could lie on the left side—the wounds were healed—and the chest considerably diminished in volume, as well as less tense and tympanitic. The heart, however, could still be felt on the right side, and the fluctuation of a fluid was perceptible in the left. Dr. D. entertained hopes of recovery.

The air which had rushed out into the bladder was found to consist of 93 parts of azotic gas, and 7 of carbonic acid gas, being almost the same as that found in the preceding fatal case.

We should be glad to know the final result of the second case, and hope the Doctor will favour the profession with an account of it.

---

9. *Blue disease.** Dr. Olivry, of Quimper, has lately related a case of this organic imperfection in the circulating system. A boy six years of age came under his notice, whose stature was not proportioned to his years, and whose cheeks, lips, hands, and arms,

---

* Dr. Olivry.—Journal Général de Medecine.

continued of a blue colour from birth. The pulse was irregular, small, and feeble; and the hand placed over the region of the heart felt irregular pulsations accompanied by a peculiar noise difficult to describe. The child was also subject to dyspnœa, which sometimes threatened his life. He could not lie down horizontally, but preferred the sitting posture, and still more that of leaning forward. The natural functions, however, were regular; but he was very sensible to cold, and in the middle of summer his skin was like ice. His temper was violent and disagreeable: but his mental capacity was astonishingly precocious. He partook not of any of the pastimes of youth, but kept retired, and apparently in a melancholy mood. He loved to sleep, and when awakened was always in a violent passion, at which periods the blue colour became deeper in the parts above mentioned, and even spread to the trunk of the body. Being seized with croup, he died in thirty hours.

Dissection. Traces of inflammation on the mucous membrane of the glottis, larynx, and trachea. The bronchiæ were filled with a whitish and thick fluid. The cavities of the pleura contained some serum—the lungs were turgid, and of a reddish and violet colour—and when cut into, disgorged blood of a darker colour than natural. The size of the heart was natural. The foramen ovale was obliterated, as was also the canalis arteriosus. But there was a free communication between the two ventricles, "which permitted the blood to pass, during ventricular contraction, either into the aorta or pulmonary artery." This is not a very clear, or indeed a very correct statement. If the two ventricles act at the same time, the one would resist the regurgitation of blood from the other, in a great degree at least, and the blood would consequently take its natural course from both ventricles. But the circumstance of the septum ventriculorum being perforated, admitted of a certain degree of admixture of the black and red blood in the two main chambers of the heart—and this is the simple and true pathology of the case.

M. Corvisart relates a case of similar malformation, on which we shall have occasion to make a few remarks.

A boy 12½ years of age was admitted into the Clinique Interne on the 21st of April, 1797, ill, according to the accounts of the parents, only five months; but from the violent palpitations one would be inclined to date the origin of the disease at a more remote period. The child's countenance was puffed—lips violet coloured—breathing remarkably embarrassed—action of the heart violent and irregular, accompanied by a peculiar noise. Yet the pulse, though small and weak, was regular. The little patient could not lie horizontally. While at the hospital the disease made progress, the attacks of suffocation becoming more and more distressing, and he died on the 25th of April.

Dissection. The size of the heart was considerably augmented in all the chambers, but *especially the right ventricle.* Between the two ventricles a foramen was found, capable of admitting the point of the little finger. At one side of this aperture of communication were seen two small tubercles of a red colour. One of the semilunar

valves of the aorta was eroded, so as to permit a reflux of blood into the left ventricle during each diastole of the heart.

M. Corvisart seems to incline to the opinion that this communication between the two ventricles was not an original malformation, but that it had taken place in correspondence with the date of the symptoms. To this opinion we are not inclined to lean. That the symptoms did not show themselves till five months before the patient's death, is no proof that the communication did not exist previously between the ventricles. So long as the two chambers act equally and naturally, very little inconvenience will be felt from an opening in the septum ventriculorum, because an equal pressure is made, and an equal resistance obtains in each side of the heart. But whenever one side of the heart acts with more strength than its due proportion, then blood will be thrown, at each contraction of that side, not only into the corresponding artery, but through the unnatural aperture into the other ventricle, thus producing a mixture of the black and red blood. This appears to have been the case in M. Corvisart's patient, for he distinctly states that the parietes of the right ventricle were thicker than natural, while those of the left were not increased in thickness.

---

10. *Paralysis.** Dr. Prichard endeavours to draw still more the attention of the faculty to affections of the spinal marrow, as producing or influencing diseases. His own attention was first attracted to the subject by a perusal of M. Esquirol's observations, and by the dissection of some cases of chorea. As dissections in this disease are rare, we shall briefly advert to Dr. Prichard's cases. In the *first*, a girl of 19 years died after an attack of acute rheumatism, and with the symptoms of chorea on her. Six drachms of serous fluid were found in the brain, and adhesion of the pericardium to the heart. In this case the spinal canal was not examined.

In the *second case*, a girl of seven years had been afflicted with chorea since her infancy. In the infirmary she became delirious and died. In the sheath of the medulla spinalis there was a great quantity of serous fluid; and the vessels on the surface of the spinal marrow were finely injected with blood. There was considerable effusion over and under the meninges of the brain.

The *third case* was also that of a young female, aged 19. She was admitted with chorea, and died about a month afterward delirious, or rather maniacal. There was no striking or remarkable disease of the encephalon; but there was rather more than natural of serum under the membranes. On raising the trunk and depressing the head, between one and two ounces of serous fluid issued from the cavity of the theca vertebralis. On opening the spinal canal the membranes were found in a highly injected state.

The *fourth case* was a girl of 14 years, who had been seized after

---

* Dr. Prichard. Med. Repos. No. 1, New Series.

a fright with tremor and general agitation, which gradually assumed the character of chorea, and continued till the last moments of her life. On dissection, when the theca vertebralis was slit open, about an ounce of serous fluid escaped—the vessels of the medulla were distended—and at one part there was a layer of coagulable lymph. The brain was unusually red, and its substance vascular.

From the above dissections, and the observations of M. Esquirol, our author is inclined to place the pathology of chorea, and also of epilepsy, and other disorders, chiefly affecting the functions of the muscular system, in the medulla spinalis. "Morbid causes, says our author, acting within the spinal canal, are likely to produce effects similar to those which arise from injuries or a diseased state of the vertebral column. In those instances where we find paralysis supervening on chorea or epilepsy, particularly when the paralytic state comes on gradually, we may often expect to find the cause of the disease in the spinal marrow. The same observation may be applied to paraplegia;—and in hemiplegia, at least in cases of palsy affecting an upper or lower extremity, the morbid cause may be in the spine." Several cases are related in support of the above observations, but for these we must refer to the original communication. The object of Dr. Prichard, in this paper, is to recommend blisters and issues to the spine, in paralytic affections—*after* the necessary depletive measures have been pursued. As an internal medicine he strongly praises the effects of the oil of turpentine, in doses of one to two drachms three times a day. The communication closes with a recommendation to establish drains in the neighbourhood of the spine and head in some other nervous diseases, as epilepsy, &c.

---

11. *Cholera Epidemica.** Dr. Robson was a passenger in His Majesty's ship Malabar from the coast of India to the Equator. The ship's crew began to be affected early in April 1819, and in a few days, 89 went through the disease, of whom 14 died—a smaller mortality, Dr. R. observes, than in any of the reports he has seen. It is not so small a proportion, however, as is recorded in some of the reports. Dr. R. pronounces that venesection would not have succeeded in a single instance, although it was never tried but in two cases. Small doses of calomel and opium not being found to answer, they had recourse to a combination in the proportion of one grain of opium to a scruple of calomel for a dose. This practice proved successful. Yet Dr. R. concludes his faithful report by observing that the plan recommended by Dr. Johnson (which was precisely that employed by himself) "would probably have proved destructive."

---

* Dr. Robson. Ed. Journal, No. 77.

12. *Hæmatemesis.** Vomiting of blood is always an alarming complaint, though not always dangerous. We consider the superacetate of lead and opium, one of the best remedies both in this and hæmoptysis. Mr. Denton was called to a man who had vomited nearly two quarts of blood. Mr. D. bled him to 8 oz. ordering a cathartic of salts and digitalis; also acidulated drink. In two hours the vomiting returned, and the patient was again bled. Three grains of the superacetate with five of extract of hemlock, were given every three hours. The third dose stopped the hæmatemesis, which did not afterward return.

---

13. *Pneumonia.*† Dr. Forbes has made some judicious remarks on the subject of pneumonia in this paper. He is surprised to find Dr. Good stating, that the inflammation in pleuritis vera commences on that side (it ought to have been portion) of the membrane which lines the ribs. Dr. Cullen and Dr. Forbes are of opinion that this is a very rare occurrence. So it has appeared in our autopsical researches also. These "ingenious divisions," however, have little influence on our practice. As Dr. Forbes observes, it is often surprising how thoracic inflammation, even of the acute kind, will terminate safely although it may have been allowed to run on unmolested for eight or ten days at first. Many recover after symptoms of effusion have actually occurred. Dr. Forbes shows the superiority of one full bleeding at the commencement of pneumonia over small and repeated evacuations. Unless there are some counter-indications, Dr. Forbes permits the blood to flow *pleno rivo, until respiration* is performed without pain, and the pulse reduced in force and frequency. The generality of Dr. Forbes's patients (soldiers) lost, at the first bleeding, from 30 to 40 ounces of blood—many from 50 to 60, and "some have borne with advantage the loss of from 60 to 70 ounces." Medical men in private practice can scarcely credit these reports, but nevertheless we know them to be true. The pulse in this, as in many other diseases, is fallacious. It is sometimes scarcely accelerated when there is severe phlogosis. A slow pulse therefore ought not to deter us from using active measures where the other symptoms of pneumonia are present. "Blisters and digitalis, says our author, are no doubt useful occasionally, *when large bleedings are contra-indicated;* but in general I have little faith in them." We agree with him that—"the most useful auxiliary to bloodletting, in diminishing the action of the heart and arteries, is the tartarized antimony given in nauseating doses." In protracted cases, where symptoms of effusion are present, a combination of squills, digitalis, and calomel is employed with much benefit.

---

* Mr. Denton. Med. Repos. No. 119.

† Dr. Forbes. Med. and Phys. Journal, No. 291.

14. *Phthisis Pulmonalis.** Mr. Gaitskell has here adduced an instance which apparently proves the efficacy of the tartar emetic ointment in arresting the progress of pulmonary consumption. The patient was an unmarried female, 30 years of age, and subject to catarrhal affections. In the spring of 1822 she was suddenly seized with all the symptoms of pneumonia, and was neglected in respect to treatment. In about four months after this she presented herself to Mr. G. in a state of considerable emaciation, with evening fever, morning perspirations, pulse 120, dyspnœa, constant teasing cough, "with much purulent expectoration." Some blood was taken from the arm, the bowels were kept soluble with neutral salts, and the skin perspirable by the Dover's powder. Yet the symptoms all went on increasing. About this time Dr. Jenner's pamphlet fell into our author's hands, and he applied the antimoniated ointment to the arm, between the elbow and axilla. In the course of a week a large crop of pustules appeared. As soon as the irritation of these was appeased, another crop was elicited on the other arm, during the height of which eruption the whole skin of the body became covered with numerous small itching papulæ which deprived the patient of all comfort for more than a week. The constitutional and local symptoms now gradually abated; the pulse came down to 80; the appetite returned, and the patient perfectly recovered.

---

15. *Concussion of the Brain.*† The patient was Mr. Shipman's apprentice, who struck his head against a brass nob, but did not wound the scalp. The part stricken was the anterior edge of the right parietal bone. In the course of the day he complained of pain and heat of the part, attended with sickness and vomiting. In the evening he was delirious, with great irritability. The sense of hearing was morbidly acute. Head shaved, and 20 leeches applied, with cold evaporating lotions. Twenty ounces of blood from the arm. By these means and brisk purgatives he was relieved; but next afternoon the symptoms returned, when he was again bled, but without relief. Purgatives again mitigated the symptoms. On the third day he became blind, deaf, and dumb. He appeared hysterical. A calomel purge immediately relieved these symptoms. On the fourth morning, he again became blind, &c. and convulsed. Between 20 and 30 leeches brought no amendment. A calomel cathartic again dissipated these phenomena, and open bowels kept him free from them till his complete recovery. During the whole period of the symptoms above mentioned, there was acute pain on pressure over the epigastric region. From this and other circumstances, we agree with the intelligent narrator of the case in believing, that the obscuration of the senses above described depended on irritation in the primæ viæ. The blow on the head might derange the

---

* Mr. Gaitskell, Med. Repos. 114.

† Mr. Geo. Shipman. Med. and Phys. Journal, No. 296.

chylopoietic functions, and this derangement might very readily react on the sensorium, and produce the phenomena in question.

---

16. *Internal Hæmorrhage.** A young gentleman, 14 years of age, was at school two days before he died, and feeling a little uneasiness in his bowels, took a dose of aperient medicine which operated, and next morning he was apparently well. He returned to school, but in the night he was seized with severe pain in the abdomen which rapidly increased, and in a few hours terminated in death. An eminent physician who was called in, ascribed the disease entirely to spasm. During the attack the countenance was pale, the pulse small and rapid; the abdomen felt extremely hard, and pressure caused some pain.

On opening the abdomen, there presented a considerable quantity of bloody serum, but no appearance of peritoneal inflammation. The greater part of the small intestines was of a dark red colour, and the mesenteric veins tinged with blood. Underneath the peritoneal coat of the small intestines there were numerous minute spots of extravasated blood. On cutting open the ileum, it was found that a large effusion of blood had taken place into its cavity—its mucous coat being of a crimson hue, and the glands enlarged, giving the internal surface of the gut, in many parts, a granular appearance. The whole of the internal surface of the diseased portion of intestine was lined with a thin coagulum of blood, "but when this was removed, and the intestine washed with warm water, *it retained its crimson colour.*" On examination, the internal coat of the lower two-thirds of the jejunum was found in the same state as that of the ileum, and from it the effusion of blood had equally taken place. It was estimated that between five and six pints of blood had been extravasated.

In respect to the cause of this hæmorrhage, one gentleman present at the dissection attributed it to *congestion from spasm*—a curious cause truly! Mr. Lloyd is more disposed to place it to the account of "obstruction in some of the large venous trunks." The latter was not proved by examination, and therefore can only rank as a conjecture. For our own parts, we are not inclined to agree with either party. We consider the hæmorrhage as owing to a morbid condition of the minute vessels of the part, inducing that determination of blood which we see taking place to the membranes of the brain—to the lungs—to the stomach, and to many other structures in the human frame.

---

17. *Hydatid Simulating Ascites.*† Mr. Pretty, of Mabledon-place, has related a very curious case in our respected cotemporary,

---

* Mr. Lloyd. Med. Repos. No. 114.

† Mr. Pretty, Med. and Phys. Journal, 296.

which we witnessed ourselves, both before and after death. A midwife to an extensive charity, aged 32, had borne five children. Four years ago her illness commenced with agonizing pains in her head, which confined her nineteen months to her bed, and continued, with more or less intensity, till her death. For these pains she had been salivated, but without relief. She also became a patient in Guy's Hospital, and was discharged without benefit. An abdominal disease was now added to that of the head. When Mr. Bagster (Mr. Pretty's partner,) was consulted, (several months before her death) he found an enlargement of the liver—ascites (as he then supposed) and anasarca of the lower extremities, together with cough, expectoration, and difficulty of breathing. The usual remedies were tried against the dropsical affection; but failing, she was tapped in the linea alba, and about six quarts of water were drawn off, but without diminishing the size of the abdomen as much as was expected. The enlarged liver could be distinctly felt, but no other tumour. The abdomen soon filled again, and the operation was again performed, but without removing more than two pints of a greenish-coloured ropy fluid. The fluid first evacuated by paracentesis became so coagulated as scarcely to drain through the holes of a common sink; and that which came off in the second operation was still thicker. A very severe bowel complaint now came on, and she sunk early in July, 1823.

Dissection. The edge of the liver could be distinctly traced low down in the abdomen. On throwing back the parietes, a firm white substance concealing the whole of the intestines came in view, and puzzled the operators for some time to make out what it was. When cut into longitudinally, a greenish-coloured fluid escaped, and large masses of gelatinous substances were easily removed from its cavity. In short, this fluid and coagula were contained in an enormous cyst, or hydatid, extending from the liver to the superior aperture of the pelvis covering the other abdominal viscera, and forming attachments to the peritoneum lining the abdomen, excepting in front, where there was a free space of a few inches in extent. It had no connexion with the ovaria or the uterus. The parietes of the cyst were about an eighth of an inch in thickness. The intestines were glued together with coagulable lymph. The liver was enormously enlarged, but not tuberculated, weighing nine pounds avoirdupois. Nothing particular in the thorax. On examining the head, an ulcer was found over the os frontis, which had been open for nine or ten months. Four or five tubercles, the size and shape of a common horse-bean, were dispersed irregularly under the integuments of the head. When cut into, they discharged yellow pus, leaving the bone carious underneath. The dura mater adhered in several places with great firmness to the cranium, and was thickened.

We think it quite evident that the trochar, in both operations, had penetrated the hydatid, whence the discharge issued. In respect to the affection of the head, there is reason to suspect a syphilitic taint. All, however, that could be collected from the husband and friends was, that Mrs. N. in the course of her practice, had attended a

woman, and contracted a sore on the thumb which was thought to be venereal, as she had ulcerated throat about six weeks subsequently. Salivation was employed. This occurred eleven years before her death. The case is an interesting one.

---

18. *Expulsion of a Portion of Intestine per Anum.** It is now pretty clearly ascertained that an *invaginated* portion of intestine may become sphacelated at its extremities, detached from its place, and discharged from the body, without necessarily destroying life. The following appears to be a sufficiently well authenticated case of this kind.

L. B. four years of age, of feeble constitution, but lively and healthy, was seized with smallpox on the 23d July, 1820, and took no medicine till the 4th of August, when Dr. Legoupil was summoned, in consequence of the child having, for some days, complained much of violent colicky pains in the belly, accompanied by much discharge of blood per anum, but no vomiting or hiccup. Our author found the abdomen slightly distended—the right iliac region being more tender and depressed than the rest. The breathing was natural—the pulse strong, and quickened. The pustules were beginning to dry off—and there was a disagreeable putrid smell about the child's bed. The same day there appeared at the anus a purplish red tumour, the size of a pullet's egg, from the surface of which some drops of blood issued. It was supposed to be a prolapsus of the mucous membrane of the rectum, and fomentations were applied. On the fifth, the tumour exhaled a putrid odour, the stools passing in a liquid state. On the 6th, 7th, and 8th, the same state continued; but on the 9th the swelling burst forth, drawing after it a cylindrical body resembling a piece of small intestine, and about six inches in length. This substance was carefully examined by Drs. Legoupil and Delisle, and afterward sent to the Societe de Medecine de Paris, where it was recognised to be the entire of the cæcum, and about six inches of the ileum. The child recovered and did well.

Another case, still more remarkable, has lately been presented to the Royal Academy of Medecine, by Larrey, Roux, and Beclard.† The patient, after labouring for twelve days with symptoms of internal strangulation, as obstinate constipation, fæcal vomitings, hiccup, abdominal pain, tumour in the right iliac region, &c. discharged a portion (supposed) of intestine and mesentery thirty French inches in length. The patient now recovered, with the exception of a painful sensation remaining in the right iliac region. He died three months afterward of peritoneal inflammation; but leave could not be obtained to open the body.

In these cases Nature effects a junction of the sound intestinal tube, by uniting the upper and lower extremities.

---

* Journal General de Medecine, vol. 73.
† Revue Medicale for August, 1823.

19. *Tetanus.** Mr. Harvey, of Castleheadingham, has related a case of traumatic tetanus successfully treated by opium in moderate doses. The patient was a wheelwright, who nearly cut off the end of his middle finger with an axe. About 16 days afterward the jaw became locked, and tetanus was established. Opium, in moderate doses, with occasional purgatives, and antispasmodics, conducted to a successful issue, in about six weeks. The disease, in this instance, does not appear to have been of a violent kind. It became chronic, in which cases success generally ensues. It is, however, very creditable to the zeal and perseverance of the surgeon in attendance.

20. *Acute Rheumatism.*† We have several times hinted to practitioners the impropriety of attempting the reduction of acute rheumatism by the same decisive system of depletion which we use in the common phlegmasiæ of internal organs or structures. We have often seen the bad consequences of such treatment, in protracting the disease, debilitating the patient, and sometimes producing metastasis of the inflammation from exterior to interior parts. The following case (which we shall greatly abridge) is an exemplification of these remarks.

Mrs. D——, aged 40, had had three or four attacks of acute rheumatism during the last ten years. On the 26th of February, she was seized with the premonitory symptoms of fever which soon evinced the rheumatic character, and by the 2d of March, when Dr. Kemper visited the patient, the general inflammatory state had acquired a great degree of intensity, and "the joints of her limbs, from the elbows and knees downwards, were affected with swelling redness, and most acute pain." Twenty-four ounces of blood drawn from the arm—a cathartic of calomel and jalap. In the evening the same venesection and purgative repeated. 3d March, twenty-four ounces of blood drawn off—in the evening 16 ounces. 4th. Sixteen ounces, and in the evening 16 ounces more. 5th. Twice bled to 12 ounces each time. 6th. Another venesection of 12 ounces. Thus in five days about 11 pints of blood had been drawn from a woman of spare habit. Dr. K. now thought he had subdued the disease; but he was deceived. A new train of symptoms developed themselves more formidable than the inflammatory. The patient was seized with faintness, followed by darting pains through the lungs, with hurried and difficult respiration. "There now appeared to be hardly any remains of the disease externally." Laudanum, blisters, two small venesections, diaphoretics, laxatives, &c. were employed for ten days, "without any sensible alteration of the symptoms." About the 17th day, an œdematous swelling of the feet took place. Digitalis, blisters, infusion of bark, &c. gave some relief, and reduced the pulse; but the cough and difficulty of breathing still continued troublesome. On the 27th day, calomel, digitalis, and antimonial powder were

* Mr. G. Harvey. Med. and Phys. Journal, No. 293.
† Dr. Chapman's Journal, No. 12.

given every six hours. "Her cough was checked in a few hours, and in about two days entirely left her. The action of the kidneys, at the same time, was considerably increased—the swelling began to subside, and the pulse sank to 50 in the minute, and irregular—without any change in the respiration." A metastasis now took place to the head, and became very alarming. Fortunately the rheumatic inflammation returned to the extremities, and the interior organs were relieved. She recovered; but let her beware of another attack!

We think this case may afford a useful lesson to those practitioners who see nothing in acute rheumatism but common inflammation: and who, when they draw the lancet, throw away the scabbard, till they conquer their enemy. We can assure them that in thus conquering one enemy they will frequently set up another, and a much more formidable opponent.

---

21. *Carbuncle.** Mr. Blackadder, in his valuable treatise on hospital gangrene, has recommended the application of escharotics in cases of carbuncle. Mr. Swallow was called in by Lord Clermont for a well-characterized affection of this kind, situated on the back of the neck, over the cervical vertebræ. He had but just recovered from a similar attack under the able care of Mr. Guthrie of London. Mr. Swallow immediately made a deep crucial incision through the whole extent of the carbuncle, and filled up the incised spaces with dossils of lint well moistened in equal parts of the liq. arsenicalis and water, the fluid application being renewed every hour or two. After twenty-four hours' application, a slight eschar began to form, the surrounding inflammation and pain evidently diminishing. Twelve hours' longer continuation produced a sufficient eschar, and the pain and inflammation ceased. A common poultice was then applied frequently till the eschar separated and left a clear wound, which was easily healed.

Mr. Swallow, who had charge of three large hospitals in Spain, appropriated solely for hospital gangrene, never saw any ill effects resulting from the application of arsenic in the gangrene above mentioned. The quick formation of the eschar, he believes, prevents the absorption of the deleterious substance.

---

22. *Physiological Pathology.*† A case was lately read by M. Royer-Collard, at the Royal Academy of Medicine of Paris, detailing the phenomena attendant on disease of the anterior portion of the spinal marrow. The man had been insane for more than 17 years, ten of which were past in a state of stupidity. The lower extremities were unsteady, and for some years completely paralytic—but their *sensibility* was unimpaired. On *dissection*, the pia mater covering the anterior face of the spinal marrow was of a yellowish colour—the cor-

---

* Mr. Swallow. Med. and Phys. Journal for September, 1822.
† Revue Medicale, September, 1823.

pons olivaris and pyramidalis, and also the bundles composing the anterior part of the spinal chord were grayish and soft as bouillie. The *anterior roots* of the spinal nerves were in a similar state. The *posterior* portion of the spinal chord, and the *posterior roots* of the nerves were healthy. This is another confirmation of the doctrines of Bell, Magendie, &c.

23. *Diabetes.** Dr. Carter is publishing a series of interesting hospital reports in our respected cotemporary, of which reports we shall, from time to time, take some notice. A case is related of diabetes, in a man 33 years of age, where the disease resisted various methods of treatment till—"hard work, aided by warm clothing, and a scruple of Dover's powder at night, entirely removed the disease." An inordinate and unhealthy action of any one organ is pretty generally restrained by increasing the function of some other organ. It is evident that the skin, as an extensive outlet, sympathising powerfully with almost all the glandular viscera, is an important agent in the removal as well as in the production of diseases. Its agency, therefore, should generally be employed in diabetes. Dr. Carter's practice, he observes himself, is not new—but this is of little consequence, provided it is useful.

II.

Therapeutics.

1. *Injection of Opium into the Veins.*† From a great number of observations and reflections on the operation of poisonous substances, M. Coindet comes to the following conclusions.

1mo. That there are but two classes of poisons—the first class comprehends the caustic and irritating substances—the second comprehends all the others.

2do. That the poisons of the last class when taken into the stomach possess an intensity of action in an inverse ratio to their nutritive properties.

3tio. That the decomposition of substances in the stomach varies with age, sex, health, and disease—in short, with the powers of digestion.

4to. That the injection of medicinal substances into the veins may be very useful in certain diseases where the digestive function is so energetic that the said medicaments would be quickly decomposed in the stomach, and consequently prevented from entering the circulation unchanged, and acting on the system according to their peculiar properties.

The following remarkable case will illustrate these conclusions.

* Dr. Carter. Med. Repos. 119.

† Charles W. Coindet. Revue Medicale, Juillet 1823.

In December 1819, M. Coindet was called in consultation with M. Herey, to Jean Paterson, a young girl of 14 years, who was said to be labouring under violent tetanus. Three years previously, having been frightened by a dog, she fell into a nervous state, which soon assumed the form of well-marked hysteria. During four months the attacks took place every day at irregular hours. The catamenia now appeared, and the hysteric paroxysms ceased. The catamenia became obstructed, and the hysteria returned in the following manner. While sitting one day, at dinner, she was suddenly seized with rigid locking of the jaws, and in a few minutes afterward became insensible. In two or three days the spasms extended from the head to the trunk, and assumed the appearance of real tetanus, still she remained insensible. In this state she had continued a week when our author first saw her. Various medicines were tried, but with little effect. The disease gradually ceased in about three weeks. In the middle of January 1820, M. Coindet was again called to her, and found the same symptoms as before described, but in a more aggravated form. The spasms were more violent than in the majority of cases of idiopathic tetanus. They commenced very irregularly in attacks of emprosthotonos—the head sometimes coming with violence against the knees. Opisthotonos succeeded; the body took the form of an arch, and rested on the heels and occiput. In these paroxysms, which sometimes lasted 20 minutes or more, the whole muscles of the body participated in the painful tension. The respiration was embarrassed—the pulsations of the heart became feeble and irregular—and the poor girl was threatened with suffocation! This horrible agony was broken up by some brisk convulsions, and succeeded by an interval of tranquillity. This succession of paroxysms had now lasted three weeks, and was increasing in degree when M. Coindet visited the patient. Her ordinary attendant had administered as much as an ounce of laudanum for a dose, without producing any effect on the system, which led our author to suppose that the remedies were decomposed in the stomach, and did not reach the circulation unchanged. It was therefore determined to inject a solution of opium into the veins. A scruple of opium was dissolved in distilled warmed water, and then filtered. There was a residue of 12 grains on the paper, but the narcotic principles were almost all in the solution. In the presence of several medical gentlemen, an opening was made into the vena basilica of the right arm, and the point of a fine syringe introduced, when a drachm was injected every five minutes, taking care not to allow any air to pass in, and to move the point of the syringe as little as possible in the vessel. At the *first* injection the respiration became more regular and less rapid—the state of the pulse and the other symptoms remaining the same. At the *second* injection the breathing became quite natural—the pulse rose to 100 and got fuller—the surface became a little elevated in temperature, and soon broke out in a gentle perspiration—the spasms were less violent—and the patient heaved some deep sighs, like a person awaking from sleep. At the *third* injection the pulse rose to 112, stronger and fuller—the skin be-

came more coloured and covered with sweat—the convulsions ceased almost entirely—and she articulated some words indistinctly. At the *fourth* injection the breathing became quicker, and the pulse rose to 120, very full, the skin being red, and the perspiration abundant. Several signs of returning sensibility occurred. At the *fifth* injection the foregoing phenomena were augmented in degree—the sight and hearing were entirely restored, the patient recognising the physicians—she articulated distinctly some sentences, but like a person awaking out of a sleep troubled by dreams.

The operation was not followed by any alarming symptoms. The patient experienced some sickness at stomach in the night, with a little irregularity of breathing, and precordial anxiety. The vein also showed signs of inflammation, which were subdued by repeated applications of leeches and icy lotions in the track of the vessel. The patient described the effect of the injections as if a torrent of liquid fire had been poured through the veins of the arm, concentrating in her chest, and thence dispersed over the whole body, attended with violent heat and pricking of the skin. These sensations, she said, were of a most painful nature. She had a slight return of the spasms four days after the operation; but they readily yielded to the internal exhibition of opium. After an interval of complete health the disease again returned, but not in so violent a degree, as formerly. The use of the bath, and a discontinuance of strong irritating purgatives, which she was in the habit of taking, promptly restored her to health.

The foregoing experiment shows that opium may be injected into the vascular system, without always producing fatal effects; but even in the above case we conceive the young lady ran no small risk from the inflammation of the vein alone. Nevertheless, in desperate cases, as of hydrophobia, or tetanus, this *anceps remedium* may be worthy of a trial.

---

2. *Constipation of the Bowels.* On the 6th of May, 1822, a paper by Dr. W. Maxwell, was read at the Dumfries Medical Society, and subsequently published in the 78th number of the Edinburgh Medical Journal, on "*Constipation of the Bowels.*" Our author confines his observations to cases occurring without change of structure; dividing them into three sections. 1$^{mo.}$ constipation from indurated fæces—2$^{ndo.}$ from intus-susceptio and other visceral displacements—and *tertio*, from paralysis of the bowels. It is to the first class, almost exclusively, that Dr. M. directs his attention in the present paper, and endeavours to illustrate his subject by cases. The aim of the author appears to be to recommend two remedial agents of paramount power in this disease—namely, large injections of tepid linseed oil—and inflation by air, so as to distend the bowels and obviate the obstruction. In throwing up the oil, there should be a shoulder to the pipe to press on the anus, and prevent the return of the fluid during the operation. The quantity thrown up by Dr. M. is considerable—sometimes three or four pints. He mentions a case where he threw up 3½ gallons of warm water, before it reached the stomach—which, he thinks, it may always be

made to do, notwithstanding the valve of the colon. "When a large portion of fluid is forced up by injection, the patient should be placed in a posture that will allow the bowels to hang at nearly right angles with the spine." What this posture is, our author does not say—and we confess we are unable to divine. The practice of throwing up large quantities of fluid, so as mechanically to distend the bowels, is not new, as our readers know; but it is a measure which we think might be more frequently resorted to than it now is.

---

3. *Pharmaceutical Formulæ.** A correspondent in the London Medical and Physical Journal recommends a tincture of digitalis in spiritus ætheris nitrici (℥j. to ℥iss.) in preference to the spirituous tincture now in use. If he can give no better reason for the change than the objection to the stimulus of the menstruum (in the present form) when exhibited in diseases of excitement, we think that objection "frivolous and vexatious." What possible effect can eight or ten drops of proof spirit have on the human frame, taken three or four times a day? The idea is preposterous.

Mr. Sprague, an ingenious practitioner at Kingston, has offered a series of pharmaceutical observations on the pharmacopœia, in some late numbers of our respected cotemporary, from which we shall make a few extracts.

Infusum Sarsaparillæ. Mr. Brodie, we know, is in the habit of prescribing the following form of sarsaparilla, which is much less expensive than, and perhaps equally efficacious as, the simple or compound decoctions, now in use.

1. ℞. Sarsaparillæ radicis concisæ et contusæ ℥iss.
   Glycyrrhizæ rad. contusæ . . . . ℥ss.
   Coriandri seminum contusæ . . . ℥ij.
   Liquoris potassæ . . . . . ℥i.
   Aquæ ferventis . . . . . Oj.

Macera per horas xxiv. in vase leviter clauso et cola. A third part of this infusion may be taken thrice a day. Or the following:

2. ℞. Sarsæ radicis concis. et cont. . . . ℥iv.
   Glycyrrhizæ rad. cont. . . . . ℥j.
   Liquoris Calcis . . . . . Oiv.

Macera ut supra. A pint daily.

The following is the formula of vinum colchici introduced into Guy's Hospital by the late Dr. Marcet, and is considered by Mr. Sprague as the best method of preparing this important medicine.

3. "Take of the recent bulb of the colchicum (raised in *July* or *August*) sliced and bruised . 26 ounces.
   Sherry wine . . . . . 24 ounces.
   Rectified spirit . . . . . 2 ounces.

Agitate the mixture twice a day, for seven days, and then filter for use."

---

* London Medical and Physical Journal, No. 298, and London Medical Repository, No. 120, 121.

There are numerous observations, original and collected, in Mr. Sprague's papers, which deserve the attention of the College, in the next edition of their Pharmacopœia, as well as of the professional public at large.

4. *Bodies in a State of Putrefaction.*—As the study of anatomy in this country is environed with so many difficulties, it becomes a great object, in every point of view, to preserve bodies, in our dissecting rooms, as much as possible in a state of freshness. M. Labarraque, in a memoir lately read before the Academy of Medicine, avers, that a fluid composed of one pound of chloruret of lime in 30 or 40 quarts of water, when applied by means of a cloth dipped in it, to bodies in a state of putrefaction, will remove or prevent the fetor. He also proposes the substitution of liquid chloruret of lime for the acid gases commonly employed as disinfecting agents. This, we imagine, is not of very great consequence, as we believe that pure atmospheric air and ventilation are the best and surest disinfecters. Where we have fetid smells covered by acid gases, we are not apprised of the presence of the enemy.

P. S. Since writing the above, we observe a short paper in the *Journal General de Medicine* which bears on the present subject. M. Orfila was consulted by the police whether poison could be detected in a body that had been buried so long as 30 days! He answered in the affirmative, and was directed to exhumate a corpse and examine it in a medico-legal point of view. The body had been buried 32 days, and, when exposed to the open air, exhaled such a horrible fetor, that it could not be borne at two hundred yards distance. After three hours' exposure, the fetor was little diminished, and it was determined to try the aspersion of solution of chloruret of lime. The mephitic exhalations ceased immediately; and Orfila and his assistants were enabled to prosecute the investigation for several hours without inconvenience. Arsenic was incontestably detected in the intestines. In rendering homage to the merit of Labarraque's discovery, M. Orfila is of opinion that, by means of the article in question, we may proceed without danger or difficulty, to the examinations of bodies that have been several months interred.*

5. *Opium in Acute Mania.*† Mr. Allan, an intelligent surgeon in Leicester Square, London, has published a case illustrating the utility of large doses of opium in a paroxysm of acute mania. The patient had fallen down in a fit, but was found by Mr. A. talking incoherently, and with a dark brown tongue, and full firm pulse. He was bled to 32 ounces, and then had calomel and colocynth to open the bowels. Another epileptic fit occurred the succeeding day. Leeches—general bleeding—nauseating doses of antimony. No diminution of the mental alienation. Thirty-six leeches to the

* Journal Général de Medicine, August 1823.
† Mr. Allan. Ed. Journal, No. 77.

scalp, calomel and extract of rhubarb every four hours. Next day he was more outrageous than ever. Forty ounces of blood abstracted, which gave but temporary relief. Confined by a straight-waistcoat. Two grains of opium and ten of hyoscyamus statim, and to be repeated every four hours till sleep or quietude were procured. Passed a more noisy and restless night than ever. In the course of next day, however, he became quiet and fell into a state of stupor, from which he awoke refreshed, and soon regained possession of his mental faculties. His mouth was now affected by the calomel he had taken. He was a man addicted to drink, and the disease appears to have been closely allied to delirium tremens. It is probable that no extent of bleeding would have checked the disease had not opium been administered.

6. *Prussic Acid.** It is better than two years since Dr. Macleod published some observations on the good effects of prussic acid in some cases of dyspepsia. More extended experience has confirmed him in regarding this remedy as of considerable power in those forms of indigestion which are attended with much pain in the stomach and flatulence. Palpitation of the heart is not an unusual attendant on dyspepsia, sometimes simulating angina pectoris. In organic affections of the heart, too, we very generally have symptoms of dyspepsia, which aggravate the original disease. "In such instances of morbid action of the heart brought on by dyspepsia, or of dyspepsia sympathetic of organic disease of the heart, I am inclined, says Dr. Macleod, to think that much benefit is to be obtained from the employment of prussic acid."

Leeches to internal Surfaces. In the present volume of this Journal we have recorded the practice of Dr. Crampton respecting the application of leeches to internal surfaces affected with inflammation. It is but fair now to add, that three years ago, or more, Dr. Velpeau of Tours, presented to the public a memoir on the same subject, extracts from which are given in the Nouveau Journal de Medicine for July 1820. Dr. Velpeau observes, that he experienced the most salutary effects from the application of a single leech to the internal surface of the inferior palpebra, in cases of opthalmia. If the leech be applied about a line from the external border of the eyelid, it will leave scarcely any trace of the bite, and produce no ecchymosis; but if it be allowed to fasten on the skin it will do both. The author confesses that he took the hint from Demours, who, in his treatise on diseases of the eye, recommends this practice.

P. S. We are informed by a respectable correspondent that Dr. Monro, of Edinburgh, was in the habit of applying leeches through the medium of a silver canula to inflamed tonsils, in severe cases of cynanche. He mentions this, not with the view of detracting from the merits of Dr. Crampton, but to ensure to Dr. Monro the reputation of being the original inventor of the process.

* Dr. Macleod. Med. and Phys. Journal, No. 298.

8. *Obstruction of the Bowels.** Dr. Chisholm has related a case of obstinate constipation of the bowels relieved by *Read's injecting machine*, after various other means had failed. The obstruction had existed three or four days before Dr. Chisholm saw the patient with Mr. Beet, Surgeon, at Ashford. When seen by Dr. C. the patient's extremities were cold, and stercoraceous vomiting had come on. A tepid solution of yellow soap was prepared, and more than a wash-handbasin-full was gradually but perseveringly thrown up by means of the instrument above mentioned, and prevented from returning by napkins pressed to the anus. The patient's belly now resembled a drum. When the injection was allowed to come away, the spectators had the gratification to find it mixed with fæces. Shortly after this the patient passed flatus and stools, and all the bad symptoms quickly vanished. "*I have had many other cases, says Dr. Chisholm, where Read's machine was of infinite service, and I think every medical practitioner should have one in his possession.*" *Med. Repos. No.* 1, *New Series.*

9. *Arrest of Salivation.* Surgeon Sommé of Antwerp asserts that, mercurial salivation may be speedily arrested by the use of a gargle composed of one ounce of the superacetate of lead in two pounds of water. This gargle has the disadvantage of blackening the teeth, but is said to quickly heal those ulcerations of the mouth, which prove intractable under other means. In the ulcers of the tonsils and palate which occasionally follow mercurial courses, Mr. Sommé touches the parts with a hair pencil charged with the pure liquid of the acetate of lead.—*Archives Generales de Medicine.*

10. *Purpura Hæmorrhagica.*† It is well known that physicians are divided respecting both the pathology and treatment of this disease; some taking Dr. Parry's doctrine for their creed, and employing venesection, &c.; others viewing the disease as one of debility, and exhibiting the mineral acids, tonics, &c. Latterly some cases have been published where purgatives of oil of turpentine were found beneficial, and Mr. Thompson, of Whitehaven, has brought forward a case in support of this method of treatment.

It was a boy, five years old, whose body became covered with purple spots, accompanied by effusion of blood from different parts —pulse very quick—and other marks of pyrexia present. What was evacuated from the bowels was the same colour as that effused from the eyes and other parts. Turpentine was exhibited in small doses, sometimes combined with castor oil—and with a small allowance of port wine. Under this treatment, the boy gradually improved. The oil of turpentine was given by Mr. Thompson with the double view of acting on the bowels, and also of being absorbed into the system.

* Dr. Chisholm, Physician to the Canterbury Hospital.
† Mr. Ed. Thompson. Med. Repos. No. 119.

11. *Blood-letting in Hydrothorax.** Bleeding in dropsical affections is no new remedy; but as hydrothorax is a formidable disease, and as there is a considerable antipathy against venesection existing among great numbers of the profession in a malady characterized by debility, we deem it proper to notice such cases as bear upon the subject in a practical point of view.

Mr. B. was called to a woman, 50 years of age, who was generally œdematous, with great oppression on the chest, inability to lie down—frequent cough with watery sputa—the sensation of a fluid in the chest when the body was changed—countenance œdematous and pallid—urine scanty, and not coagulable by heat—thirst—pulse 90, small and hard—disturbed sleep. After evacuating the bowels, it was determined to make a decided impression on the system, by drawing blood till syncope was produced. This required 36 ounces. She felt greatly relieved, and saline purgatives were continued, with supertartrate of potash in large doses. Two days afterward, bleeding was again employed to syncope. The urine now increased in quantity—the pulse fell—the thoracic symptoms decreased. She rapidly recovered. The same practice was employed with success by the same writer in another case. Mr. Braid is deceived when he thinks that the presence of albumen in the urine, as shown by its coagulating by heat, is considered as the *only* criterion for the utility of bleeding. Dr. Crampton and others have shown that, little or no dependence is to be placed on this criterion.

---

12. *Supposed Hydrophobia.*† Great bruit was occasioned by this case at the Hotel Dieu, and re-echoed through Europe, by the Journal des Debats. It was, for some time, supposed that the monster hydrophobia had at last come under control, but this is not yet the case. The subject, however, is curious and interesting in a physiological point of view, and the particulars are worthy of record.

Case. Lazarus Beaufort, 25 years of age, a baker, was brought into the Hotel Dieu, on the night of the 14th October last. A disappointment in love had rendered him despondent for a fortnight previously, and led him into excesses in drink. Eight days before he entered the hospital, he had been seized with epistaxis, which continued three days without ceasing. The hæmorrhage stopped, he became delirious. On the 14th, in the afternoon, he was affected with strong convulsions. 15th (in the hospital) he was calm, but his speech was embarrassed—tongue red and rather dry. Presently he became greatly agitated and even convulsed, his face expressive of horror. He got furious, and attempted to bite every one around him, and spat in their faces, if presented drink, or shown any thing with a polished surface. Nevertheless he swallowed three or four times, though with difficulty, some drink which he called for. Generally he rejected liquids with horror. His pulse was very quick—skin

---

* Mr. Braid. Ed. Journal, No. 78.

† Archives Generales, Novembre, 1823.

pale, and covered with a viscid cold sweat—respiration interrupted. The patient had some lucid intervals, during which he answered distinctly to questions. Then again screaming, convulsions, &c. At this time a spot was discovered on one of the metacarpal bones of the right hand, of a reddish colour, depressed, circumscribed, and hard. It was supposed to have been the result of caustic. Some small scratches and traces of wounds were found on other fingers. His parents accounted for these by a fall which the patient had had on a broken vase; but M. Magendie thought the patient made some obscure allusion, in incoherent language, to the bite of a dog.* A large bleeding from the foot. At one P. M. Dr. Majendie returned and found the patient rather worse, and was convinced that the disease was hydrophobia. He determined to inject warm water into the veins. Into the radial vein of the fore-arm, Dr. M. injected about a pint and a half of tepid water, with facility, by means of a syringe, drawing off, at the same time, about six ounces of blood from the vein. Before the injection, the pulse was from 130 to 150. It gradually fell, and by the end of the operation, it came down to 80. The man called for drink, and swallowed it with ease. The convulsions nearly ceased—the countenance was calm though pale—he answered questions, and called frequently for drink—sweated profusely. At five, he asked to get up to make water, and passed about a pint of deep yellow urine. The pulse had got up again to 125—140 pulsations. 11 o'clock at night, patient was calm, sensible, and drank with ease. 16*th October.* Slept three or four hours in the night. Was calm and sensible this morning, but had some difficulty in swallowing liquids. Pulse about 100, small and weak. Epigastrium tender to pressure—constipation—sense of tightness about the pharynx. In the course of the day a stool. Great debility—pulse 90. At 8 in the evening a paroxysm (of what, is not mentioned) increase of heat on the skin—frequency of pulse—slight subsultus tendinum. 17*th Oct.* Three fetid stools in the night, almost entirely composed of blood—constant delirium—pulse now very small and depressed, about 90 in the minute. This morning cessation of the delirium—great thirst—liquids swallowed freely—some bouilli taken with appetite. In the course of the day, another bloody stool—alternately better and worse. In the evening another paroxysm. 18*th.* Had a long and sound sleep in the night. This morning vomited some green matters—tongue dry—pulse more developed—the wound in the arm painful and tumefied—subsultus tendinum. 19*th.* Vomiting this morning—tongue moist—thirst less urgent—black stools. 20*th.* Vomiting—pallid countenance—small and frequent pulse—pain on pressure of the epigastrium—right lower extremity swelled, as were the wrist and elbow of the opposite side—great fear of death. 21*st.* All the symptoms worse—much moral

* After the man's death, it was ascertained, that the above appearances were the result of a slight burn. The case was, therefore, *not* canine hydrophobia.

and physical prostration. 22*d*. Died at 2 o'clock this day, eight days after his admission into the hospital.

Dissection. We shall pass over many of the external appearances recorded by the authors, and which, we think, are quite insignificant. The vein operated on, and the surrounding cellular tissue were inflamed, above the wound. The brain slightly injected—some serous fluid in the ventricles—spinal arachnoid injected, and much sanguineous effusion in the cavity of the vertebral canal—mucous membrane of the bronchiæ red and injected throughout—the divisions of the bronchiæ filled with red and frothy mucus—some reddish serum in the pericardium—heart and veins in the neighbourhood filled with gas—substance of the heart pale—mucous membrane of the stomach offering two patches of inflammation—several ulcerations in the mucous membrane of the ileum near the cœcum—inner membrane of the colon inflamed in some places—a gazeous infiltration into the cellular membrane of the abdomen.

Remark. We have not yet read M. Magendie's observations on this curious case, but merely analyzed the statement as published *in* the ARCHIVES—the most authentic source of medical information in Paris. That the disease was *not* hydrophobia canina, no man of common information can for a moment doubt, notwithstanding the display made of it, *as such*, in certain non-descript medical newspapers in this country. One of these, pretending to wonderful celerity, published the case in *January* here as an astonishing instance of early information, though it was published in Paris on the 1st of *November*, and the Journal containing it in the hands of most well-informed men in this country, more than six weeks! And after all, the case was *not* hydrophobia. As a sequel to the curious case of Dr. Coindet's, we think it worthy of record, among the instances of dangerous and daring remedial agents.

---

13. *Strychnine and Brucine.** M. Andral has lately made many experiments with the strychnine, and also the brucine, (the alkaline salt of the angustura falsa,) from the results of which he is inclined to prefer the latter, as much less dangerous than the former. From his experiments on man and animals with both substances, he draws the following conclusions or corollaries:—1^mo. Pure strychnine acts on man like the extract of nux vomica, but with infinitely greater intensity. 2^ndo. The action of strychnine is so powerful, that it should not be employed but with the greatest caution. 3^tio. Brucine may be commenced in doses of half a grain, and gradually increased. 4^to. Strychnine and brucine evince more or less effect on man, in a therapeutic point of view, according to the kind of paralysis for which it is administered. Thus, in paralysis connected with an inflammatory condition of the brain or spinal marrow, the above preparations aggravate the complaint; and so, in those cases of paralysis succeeding cerebral hæmorrhages, the employment of these alkalies is very

---

* M. Andral. Archives Generales, Octobre, 1823.

useless if not dangerous. But there are other cases of paralysis where the complaint seems to continue after the absorption of the extravasated clot of blood; and here the alkalies may be very serviceable. Finally, these medicines are proper in cases where the paralysis does not depend on a lesion of the brain or spinal marrow, as in individuals who handle saturnine preparations.

These conclusions of our author are not to be implicitly relied on without much further trial; but the obstinate and deplorable disease against which these medicines have been administered lead the medical practitioner to investigate with care and attention every remedy that seems to offer a chance of success.

---

14. *Degeneration of Muscle.** M. Guersent lately presented to the Royal Academy of Medicine a case of what has been termed fatty degeneration of muscle. A child had been, from the age of three years, affected with rigid contraction of the right lower extremity—(permanent flexion of the leg on the thigh and of the thigh on the pelvis.) He died of croup. On dissection the spinal marrow was found healthy, as also the nerves issuing from it. The gluteus maximus was entirely destitute of its natural colour, and appeared like yellow wax, although the direction of its fibres could be easily traced and distinguished from the surrounding cellular tissue. The gastrocnemius muscle, in this little patient, was enormously developed, though remarkably pale, like those of other parts of the body.

III.

Surgery.

1. *Surgical Operations.*† In the 13th number of this Journal we stated the objects and use of the little volume whose title page is annexed, and promised to give some extracts from it in a succeeding number. We now proceed to fulfil our promise. It is hardly necessary to premise that the few extracts we make will be entirely confined to such modes of operating as our author witnessed or learnt on the Continent:—and first, of, 1. Œsophagotomy. The following is the plan recommended by Lisfranc, in cases of foreign bodies being lodged in the gullet, and incapable of being withdrawn by fingers or forceps.

"The patient should be seated in a chair, with his head reclining backwards on the breast of an assistant; the operator placing himself in front, takes the scalpel or bistoury, and, holding it like a pen, commences his incision on the inner border of the left sterno mastoid

---

* M. Guersent.

† A short Treatise on Operative Surgery, describing the principal Operations as they are practised in England and France. Designed for the Use of Students in operating on the Dead Body. By Charles Averill, Surgeon, Cheltenham, &c. London, Jackson, 1823. Duodecimo, pp. 172.

muscle, opposite the superior edge of the thyroid cartilage, and continues it down to the lower edge of the cricoid. An assistant now draws the carotid sheath to the outer edge of the wound to secure it from the knife; while the operator, cutting carefully through the cellular tissue, exposes the œsophagus, where it inclines to the left side from behind the trachea. A canula with a grooved stilet or the sonde à dard formed like a female catheter, but considerably longer, is to be passed by the mouth down the œsophagus, inclining its point to the left side, which causes it to be readily felt from the external wound. The stilet is now to be pushed forwards through the coats of the œsophagus, when the operator feels with his finger along its concave edge, to ascertain that no large arterial branch be situated on it, and then passes a bistoury into the groove, which directing it onwards opens the œsophagus. He now feels for the foreign substance, which is to be extracted by a pair of dressing forceps passed along his finger." 50.

2. *Wry Neck.* A little girl, 10 years of age, was admitted into the Hotel Dieu under *M.* Dupuytren, early in January *1822*, whose neck, or rather head, had been awry for three years, owing to a permanent spasmodic contraction of the sterno-cleido-mastoid muscle of the right side. On the 16th of the same month M. Dupuytren operated in the following manner:—

"The patient reclining against an assistant, a puncture was made, with a straight narrow-bladed bistoury, through the integuments just on the inner border of the sternal extremity of the contracted muscle. The blade of the bistoury, being flatly opposed to the muscle, was pushed cautiously behind it, the point being directed forwards and outwards till it protruded just on the outer side of the clavicular border. The edge of the bistoury was then turned towards the muscle, and a sufficient quantity of its posterior fibres cut to allow of the head being placed erect: the instrument was then withdrawn.

"In this way the integuments escaped being divided, and a future scar was prevented; a very desirable object, the patient being a female.

"The cut edges of the muscle were kept asunder by depressing the clavicle, and inclining the head to the left side. The former was effected by binding the right hand firmly to the foot, the knee being bent; thus the clavicular fibres of the deltoid drew the bone downwards; the latter by a roller passed round the head and under the left axilla.

"The patient was kept in bed; and at the end of thirteen days the punctures were healed, and she had free motion of the neck, though from long-continued habit she still turned her face to the left side. The bandages were reapplied, and the same bodily position maintained till the twenty-first of February, when they were finally taken away, and the patient pronounced cured, the head being but very slightly inclined to the right side, and having free motion in every direction." 64.

3. *Amputation at the Shoulder-Joint.* As there are some surgeons

whose great delight is in operating against TIME, and who always place a stop-watch on the table when they commence, we shall indulge them with the account of a mode of amputation at the shoulder-joint, by which Richerand asserts that "a dexterous operator can separate the arm from the trunk as quickly as an expert carver detaches the wing of a partridge." The following are Lisfranc's directions.

"Supposing the left extremity is to be removed; the patient is placed on an elevated seat, one assistant pressing the artery above the clavicle on the first rib, whilst another draws the arm forwards. The operator standing behind the patient, with a long-bladed catling, pierces the integuments on the inner edge of the latissimus dorsi muscle, opposite the middle of the axilla, and pushes it obliquely upwards and forwards, till its point strikes against the under surface of the acromion; then by raising the handle of the knife its point is lowered, and protruded just before the clavicle, at the part where it joins the acromion. He then, by cutting downwards and outwards, forms a flap from the superior and posterior part of the arm, including the whole breadth of the deltoid muscle, and a part of the latissimus dorsi. This being held back by the assistant, the joint is cut through by passing the knife between its articulatory surfaces from behind forwards, and a corresponding flap is formed by cutting downwards and outwards between the muscles and bone on the inner side of the arm. The vessels being tied, and the flaps placed in contact with each other, the operation is finished.

"In operating on the right side, the patient should be seated on a low chair, and the catling thrust from above downwards, introducing it just before the point where the clavicle is connected to the acromion, and raising the hand as it is thrust backwards and downwards, till it appears on the inner edge of the latissimus dorsi, when the flap is to be formed, and the operation continued as before." 136.

We recommend this little pocket volume to the student, as a guide in operating on the dead body, preparatory to operating on the living.

---

2. *Amputation at the Hip-Joint.* This bold and desperate operation has been successfully performed in September last by Mr. James Syme, Lecturer on Anatomy in Edinburgh.

The subject was a lad about 19 years of age, who had necrosis of the femur for some years, attended with great enlargement of the thigh, and numerous openings through which matters of different kinds were poured out. The swelling extended to within an inch of the trochanter major—emaciation was making rapid progress—and the lad's destruction seemed inevitable, unless an operation was risked. The steps of the operation we find it so difficult to abridge that we shall give them in the author's own words.

"Having, with some difficulty, placed the patient upon a table, so that the affected limb was perfectly free, and ascertained that Mr. Liston was ready to make pressure when and where required, I introduced a narrow knife, about a foot long in the blade, which was

sharp on one edge only, at the proper place for transfixing the limb; but being prevented by the bent position in which, owing to long habit, the patient obstinately retained it from passing onwards in the direction of the tuberosity of the ischium by the neck of the femur, I lost no time in the repetition of fruitless attempts, but instantly changed my plan.

"Without removing the point of the knife, I brought down its edge obliquely, and, by a sawing motion, quickly cut back, *in a semicircular direction*, to the tuberosity of the ischium, up along the femur, and round the trochanter major, so as to form very speedily identically the same flap which would have resulted from the plan I meant to have followed.

"While Mr. Liston covered the numerous cut arteries with his left hand, and compressed the femoral in the groin by means of his right, I gathered together all the mass of undivided parts on the inner side of the thigh with my left hand, and then insulated the neck of the bone by passing the knife close past its lower surface. *I now cut close down along the bone for some way below the trochanter minor*, and, lastly, made my way outwards obliquely, so as to form a good internal flap.

"Mr. Liston holding aside the flaps, I made a single cut with my long knife upon the head of the bone, which started with a loud report from its socket as soon as abduction was performed. Finally, I passed the knife round the head of the bone, cut the triangular and remaining portion of capsular ligament; and thus completed the operation, which certainly did not occupy, *at the most*, more than a minute.

"I then proceeded, without delay, to take up the arteries, which were tied by our very promising pupil, Mr. Thomas Evans.

"As soon as the femoral, which had been completely commanded by pressure in the groin, was secured, Mr. Liston relaxed his hands in order that we might form some estimate as to the size and number of bleeding vessels; and then, had it not been for thorough seasoning in scenes of dreadful hæmorrhage, I certainly should have been startled, prepared as I was to expect unusual vascularity, owing to the extensive action so long carried on in the limb.

"It seemed indeed, at first sight, as if the vessels which supplied so many large and crossing jets of arterial blood could never all be closed. It may be imagined that we did not spend much time in admiring this alarming spectacle. A single instant was sufficient to convince us, that the patient's safety required all our expedition; and, in the course of a few minutes, hæmorrhage was effectually restrained by the application of ten or twelve ligatures.

"The flaps were now brought together, and retained in contact by means of five or six stitches. Some dry caddis was laid over the wound; and, lastly, I applied a single-headed roller obliquely round the body and stump, moderately tight, so as to afford proper support to the flaps; and then we lifted into bed the patient, who was wonderfully little exhausted." 23.*

* Ed. Journal. No. 1, p. 23.

The operation was performed at mid-day. Nothing particular occurred till the evening, when so much pain was complained of, that Mr. S. loosed some of the stitches, and allowed some clots of blood to escape. He was very low in the night, with occasional vomiting, which continued next day, till an opiate injection was prescribed. On the 3d day the wound was examined, and looked well. The opiates were dispensed with after the first week—the bowels were brought into a good state by the occasional use of turpentine injections—the appetite—sleep—pulse, continued to improve—in short, every thing went on well, till about a month after the operation, when symptoms of ascites made their appearance, and in spite of all their efforts, carried the unfortunate patient to his grave, after his heroic sufferings. On dissection the liver was found altered in structure, and much enlarged. The spleen was greatly enlarged. We are ready to accord our humble mite of praise to the boldness and dexterity of the operator and his able assistants. They deserved success—in fact, we consider the *operation* as perfectly successful. The final event no human power could control.

---

3. *Amputation.* Mr. Syme, of Edinburgh, who so successfully amputated at the hip-joint, has offered some remarks on amputation generally, in the last number of our respected cotemporary of the North. If the following be the present practice of the Edinburgh surgeons, a censor in that metropolis appears necessary. "The manner of proceeding here, as every surgeon knows, is, first, to dissect back the skin *for some inches*—then to cut the muscles as high as they are exposed—and, lastly, to remove the bone as far up as the retraction of the flesh will allow." We can only say that no such practice is followed by any good modern surgeon on this side of the Tweed. Twenty or thirty years ago, indeed, we have seen the skin and cellular membrane turned up *about an inch and half*, like the cuff of a coat, and then the muscles divided down to the bone, by one circular incision. But this practice has long been abandoned. In the thigh, for instance, the circular incision reaches the muscles, and then the integuments retract, and are assisted in retraction—but not separated by dissection from the muscles underneath. Another circular incision, with the edge of the knife slanting upwards, divides the superficial muscles. These being allowed to retract, a third slanting circular is made to the bone, which is insulated an inch or two, and then sawn through. The limb thus removed presents the form of a cone, with a cylinder of bare bone at the apex. It is manifest that, in this way, an excellent cushion of muscle, and a sufficient covering of skin are left for the formation of a good stump. Such is the English practice, and certainly it forms a great contrast with that of Edinburgh, as represented (we hope somewhat in caricature) by Mr. Syme. The practice of the French surgeons—at least of their head—M. Dupuytren—is still worse than the Scotch. "M. Dupuytren cuts all the soft parts at once to the bone, which he next removes, after retracting the muscles to what he considers a sufficient extent. But here he

is not particular, as on most occasions he makes no attempt to obtain union by the first intention. Indeed I have seen him dress the bone all round with dry *charpie*, previously to *approximating* the edges of the stump, for it was seldom possible to bring them into contact." After condemning all forms and modes of amputation by circular incisions, our author goes on to recommend the flap operation. This operation, we are aware, is very useful and even necessary on some occasions, as in the leg and at joints: But we doubt much whether it will ever come into universal practice in every kind of amputation, as Mr. S. recommends. We shall give Mr. Syme's directions, however, on the subject.

"Lisfranc recommends a long very narrow knife, sharp on both edges; but I think the one used by Mr. Liston better calculated for the purpose. It is about six inches in length, and five-eighths in breadth, thin and blunt in the back, except for an inch from the point which is very sharp; the back is straight, and so is the belly, except about an inch and a half from the point, which is slightly convex.

"The dimensions which I have stated are fully sufficient for the arm and fore-arm, the leg, and all amputations in children; for the thigh of an adult, a greater length will of course be required.

"The surgeon grasping the limb with the left hand, at the place where it is to be removed, ascertains the situation of the bone by means of his thumb. He then introduces the knife over the bone at that part where he wishes to apply the saw, and perpendicularly to it, he passes close by its side, and so on until the point appears directly opposite.* This finishes the first part of the operation, or the transfixion, as it is called; after which, he cuts his way outwards, in a line forming an angle with the bone more or less acute according to circumstances, so as to complete one flap.

"He then embraces the remaining undivided parts with his left hand, and, gathering them together, passes the knife on *their* side of the bone, so as to insulate it completely. Removing the restraint of his left hand, he now forms a second flap in the same way as he did the first.

"If there is only one bone, he immediately divides it, his assistant holding aside the flaps with his hands as high as it is exposed; if there are two, he separates the interosseous substance, and does the same thing; thus finishing his operation, which, with reasonable haste, and without the smallest hurry, need never occupy more than half a minute at most."—*Ed. Journal.* 38.

For many good remarks on removing fingers, toes, &c. we refer to Mr. Syme's paper.

---

* "There is some difference of opinion as to whether this first flap should be formed from the external or internal side of the limb. But as this seems to me a matter of perfect indifference, unless in reference to the operator's convenience, I would advise the surgeon, unless he be ambidexter, always to pass the knife, in the first instance, on that side of the bone which corresponds with his right hand as he stands before the patient."

4. *Rupture of the Axillary Artery.** The reduction of old luxations is not always unattended by danger as well as pain. A man, 50 years of age, had his left shoulder dislocated by the fall of a heavy chest on the part. A physician attended and pronounced the accident to be *a fracture of the humerus just above the elbow!!* Bandages and splints were accordingly applied, and in *two weeks* the fracture was declared so firmly united as to require no farther dressings. Soon after this the luxation at the shoulder was discovered by another physician, and an unsuccessful attempt made to reduce it. Two months after the accident, the patient came under the care of Professor Gibson, of Pennsylvania. The reduction was effected on the 12th May, by venesection and pulleys, after great force had been applied in various ways. A general swelling soon took place about the deltoid and pectoral muscles, but this was not, at first, considered to be of any consequence. But the tumefaction increased, and the patient died the same night. On dissection it was found that the axillary artery was torn directly across, near the glenoid cavity of the scapula, and great quantities of blood effused among the cellular membrane of the neighbouring parts.

The records of surgery, Professor G. observes, furnish very few examples of injury, much less death, from the reduction of old dislocations. Desault relates the history of one case where either a large emphysematous or bloody tumour formed under the pectoral muscle immediately after the os humeri had been restored to the glenoid cavity. On the 13th day, this tumour had entirely disappeared. No case of the rupture of the axillary artery could be found on record by Professor G. except the mention of such an occurrence by Charles Bell, who says that this accident took place at the Newcastle Infirmary, obliging the surgeons immediately to amputate the limb. The extreme rarity of such an unfortunate event, authorizes us to make attempts at reduction uninfluenced by the chance of its occurrence. But a remark has struck us respecting the cases of Professor Gibson and Mr. Charles Bell, which we shall submit to our surgical brethren. In Mr. Gibson's case one of the means of reduction was a ball placed in the axilla, while all the force which he could exert with his heel was applied by the surgeon. Having been unsuccessful, one of his assistants, Mr. Stoudwick, tried the same plan, but failed. Again, in the case mentioned by Mr. Bell, the *Ambe* was used in the Newcastle infirmary. Thus, in both these instances of rupture of the axillary artery, great pressure was necessarily made in the axilla. Was not therefore the artery cut across by *pressure*, rather than ruptured by *distension?*—we think the former infinitely the more probable of the two—and if so, it is a reason why we should be loath to have recourse either to the ambe or the ball in the axilla, for the reduction of dislocations of the shoulder.

---

* Philadelphia Journal, No. 13

5. *Extravasation within the Cranium.** A man, 55 years of age, fell from a scaffold and pitched with his head on the pavement. He was taken up, not insensible, placed in a fiacre, and carried home. There he soon complained of weight in his head, and pain in his hands. About 8 ounces of blood were taken from the arm—he presently lost the power of speech, and he was conducted to the Maison de Sante. *Symptoms*, five hours after the accident; abolition of the intellectual faculties and sensorial functions—inability to raise the eyelids—dilatation of the pupils—breathing free—pulse natural—involuntary discharge of urine—deglutition unimpaired—incomplete paralysis of the members of the left side—two wounds of the integuments of the cranium, one above the *right* ear, the other on the *left* side of the occiput. He was a second time bled, and evinced some return of sensibility, but soon relapsed again.

Next morning, M.M. Beclard and Dubois examined the patient. M. Beclard pronounced that there was extravasation within the cranium, on the right side, under the small wound, the paralysis being on the opposite side. The crown of the trephine being applied, and the osseous disc removed, a coagulum of blood was discovered an inch in depth, the limits of which could not then be ascertained. Two more discs were removed by the trephine, and the apertures brought into one. The extent of the clot was then ascertained, and found to be very considerable, being four or five inches in diameter. At different times during the operation, the patient gave signs of great impatience. On the internal surface of the third disc of bone removed, there was a fracture, and a projection or spicula of bone. No indication of this fracture was apparent on the outside of the skull. There was a wound of the meningeal artery, whence vermilion blood was still issuing. As the man was far from being enfeebled, the hæmorrhage was suffered to proceed, no compression of the brain being now feared. By different means the extravasated blood was removed. After the operation and when placed in his bed, the patient entirely recovered his sensibility, and began to move the hitherto paralyzed members of the left side. He then fell into a light slumber, from which he frequently awoke, demanding something to eat. He was without fever, and complained rather of pain in the shoulders and hands than in the head. Next day, the dressings were removed, and the dura mater had risen nearly to a level with the interior aperture. The coagulated blood was almost entirely disgorged. The wound was dressed daily. By the fourth day, suppuration was established—no stool since the accident—gentle laxative and a clyster—a scanty stool—lancinating pain in the left breast—fulness and frequency of pulse. Sixth day, the pain dispersed—the patient greatly incommoded by the pulsations about the wound. These on the 7th day were greatly increased, with pyrexia and loss of appetite, constipation of the bowels. *Lavements.* 8th day, hardness of pulse, somnolency, yellow tint of skin and eyes, some delirium in the evening, and tendency to coma. Venesection. 9th and 10th days

* M.M. Beclard et Dubois, fils. Archives Generales, Nov. 1823.

sensibly better. The dura mater covered by fleshy granulations, follows the cerebral pulsations. From this time the recovery was rapid and uniform.

We consider that the patient ran a very great risk from the neglect of the bowels, and of sanguineous evacuations. Antimonials were prescribed, which served in this case as a substitute for more active depletion.

---

6. *Fracture of the Cranium.** Prompt surgical assistance often rescues the patient from the very jaws of death. Mr. Baker, of Staines, relates the case of a boy whose cranium was twice fractured with depression, and twice trephined in the course of two years. By the kick of a horse, on the 14th of August last, the left parietal bone was fractured, depressed, and the dura mater torn—there was also a wound on the scalp, with insensibility, and paralysis of the right arm. The trephine was employed, and the depressed portions of bone removed. There were many bad symptoms, but by purgatives, and afterward antimony and small doses of opium, the fever was reduced. Two fungi cerebri arose, one as large as an egg. Compresses dipped in a mixture of rectified spirit and water, and kept on the fungi caused them to slough, and the patient perfectly recovered. This was the second accident of a similar kind, and requiring a similar operation in the same subject. The case is creditable to Mr. Baker.

---

7. *Tourniquets in Amputation.* The force and velocity of the arterial circulation are greatly overrated even to this hour; but the danger of hæmorrhage in amputation is gradually losing its influence over the minds of surgeons, notwithstanding the glowing colours in which it has been painted by the late John Bell. In amputating at the shoulder joint and high up in the thigh, we fearlessly operate without a tourniquet—why not do the same when the removal of the limb is lower down, and when, of course, the vessels cut are smaller?—When a tourniquet is applied, we do not arrest the circulation in both arteries and veins at the same time. It is evident from the engorgement of the limb, that the parts below the tourniquet contain *a great deal more blood* than they did prior to its application. All this is lost to the patient—and it is far more, we think, than would be lost in amputating without the tourniquet; for by compressing the artery with the finger we diminish the arterial circulation, without offering any impediment to the return of blood by the veins. Hence, in this way, the limb to be removed contains *less blood* than natural. After the removal of the limb there is generally more blood lost while screwing and unscrewing the tourniquet, than while tying the vessels without the aid of more pressure than the fingers can supply. These arguments and objections are well maintained in a short paper on the subject, by that able and bold operator Mr. Liston, of Edinburgh, in the last number of our respected cotemporary—the *Ed. Journal.*

---

* Mr. Baker, Med. Repos. No. 2, New Series.

[redacted]

[redacted]

[redacted]

strong, crackling sound—that of spongy bones resembles the action of a file on such a substance as pumice stone. Oblique fractures crepitate more distinctly than those that are transverse. If liquids are effused round the fractured extremities a sound is superadded like that of the foot thrust into an old shoe soaked in water. When the fracture is complicated with splinters the crepitation is united with a crackling, as of several cornered bodies rubbing on each other.—*Archiv. Gen. Aout.* 1823.

11. *Tracheotomy.** Mr. Liston has lately performed the operation of tracheotomy in two cases—one for œdema glottidis, and the other for injury of the larynx. The case of œdema glottidis was one of pressing danger, and where suffocation was impending. Considerable difficulty was experienced in keeping the tube in the trachea, and the necessity for its presence there has continued ever since, as the aperture of the rima glottidis is not of such dimensions as to enable the patient to dispense with the tube. This case bears the nearest resemblance to that of Mr. Price (related in a former number of this Journal) of any on record. Mr. Price has now breathed through the tube nearly eight years, and is in good health at Portsmouth.

12. *Femoral Aneurism (supposed) cured by spontaneous Rupture of its Sac.*† Petro Valentine, 61, strong and vigorous constitution naturally, but worn down with age, indigence, and debauchery, was attacked with jaundice, at a time when he was experiencing much inconvenience from an increasing weakness and pain in the left leg. This was in May, 1820. The jaundice yielded; but the constitution remained low, and the diseased leg had assumed a sallow and doughy appearance from the thigh downwards, being œdematous about the ankle and foot. Upon examination a flat circumscribed tumour, better than an inch in diameter, was visible about the middle of the thigh, on the inner side of the sartorius muscle, and immediately over the femoral artery. The pulsation was visible and tangible—its contents fluid, and yielding to pressure, but immediately resuming their place again. This tumour was first perceived about two months previously by the patient. In consultation it was unanimously pronounced to be a case of true femoral aneurism. In consequence of the state of the patient's health the operation was delayed; but the limb became more swollen, and the health rapidly declined. The operation was therefore determined on; but on the night before it was to be performed, "*the patient experienced an instantaneous and violent pain in the knee, attended with considerable noise, proceeding from the rupture of the tumour. An immediate distention of the whole limb ensued, accompanied with an extensive ecchymosis from the glutei muscles inclusively, down to the knee, giving it a dark livid colour. The tumour entirely disappeared.*" The patient was much debilitated by

* Mr. Liston. Edinb. Journal, 77.
† Dr. Archer. American Medical Recorder, No. 24.

the extravasation, and complained of great tension of the thigh—his pulse was feeble, and his spirits depressed. A compress and bandage were applied and the limb bathed with spirits of camphor. This treatment was continued several days—but on the third, the limb was evidently smaller—the patient's health improving—and, finally, by the end of the third week after the rupture, the swelling and ecchymosis had so far subsided, as to permit him to walk about the room—and, in a month more, he was enabled to follow his usual avocations. We are disposed to be sceptical as to the fact of the above being a case of true aneurism and bursting of the sac, followed by so easy and sudden a cure. The physician in attendance has said nothing of the phenomena of the circulation in the limb, either before or after this supposed rupture. The pulsatory sensation was no proof of aneurism—as a tumour of the vein situated in the course of the artery would exhibit the same phenomena. Indeed we are far more inclined to consider the case as one of venous than arterial disease and rupture.

13. *Removal of Elongated Uvula.** It is now known that the constant irritation of an elongated uvula will induce symptoms resembling chronic inflammation of the chest. The following is a case of this kind.

Madam G. 30 years of age, healthy from her birth till January 1822, when she became affected with a slight cough, to which little attention was paid. It increased, however, till April, when the ordinary medical attendant was consulted, who prescribed emulsions, &c. without benefit. In the month of August the symptoms had made such progress that the patient was pronounced to have chronic pneumonia accompanied by tubercles, and was treated accordingly. In the month of December M. Cursnat was consulted, and observed the following symptoms, viz.—tightness of the chest in breathing, accompanied by sharp but fugitive pains in the thorax during coughing or making a deep inspiration—constant efforts to clear the throat of mucus—fixed pain in the larynx—loss of appetite—countenance pale—great emaciation. Yet the thorax sounded well in every part except near the top of the sternum, whence a dull sound was emitted. The pulse was small and unequal. On examining the throat, the point of the uvula was seen lying on the root of the tongue in a relaxed and elongated state. A portion of the uvula was therefore removed by a pair of scissors, and the discharge of blood and mucus soon restrained by an astringent gargle. In a fortnight the whole of the above-mentioned symptoms had entirely disappeared, and she soon acquired health and strength.

14. *Acupuncture.*† Mr. Churchill, who published some time ago on this process, informs us that—"Its success has now been so con-

* Revue, Medicale tom. xi. † Mr. Churchill. Med. Repos. 113.

spicuous, that he can assume an air of triumph, and dare any one to express his disbelief in what he has asserted respecting it." However successful and triumphant may be acupuncture, the above is not the language to announce it in. But it is the language of youth, and time will chasten it. Mr. Churchill has here brought forward three cases of rheumatism cured, or at least greatly relieved by this curious process. The first was a gardener, who had been rheumatic for three or four years, in consequence of exposure to wet and cold. The neck, shoulders, back, and hips, had been occasionally the seat of the pain. In the beginning of the present year it lost its erratic character, and became fixed in the deltoid and pectoralis major of the left side. There it resisted all kinds of remedies. "A needle was introduced about midway between the point of the shoulder and the insertion of the deltoid muscle, which pierced through the belly of this muscle until its whole length (one inch) had passed." The patient became sensible of relief before the needle had reached more than two-thirds of its depth, and when the whole way, the pain had entirely left the part. The needle was allowed to remain five minutes, when it was removed, and introduced below the clavicle, so as to pierce the pectoralis. This puncture was as successful as the former. It appears that the man went to work, with only debility of the parts, "and in a week or two felt no remains of the disease."

The second case was one of lumbago. Mr. C. introduced two needles, two inches in depth, into the muscles of the loins, "which in some degree lessened the violence of the pain in a minute or two." Finding that the disease was not removed but mitigated, he passed a third needle and a fourth into the lumbar mass of muscles, and in a few minutes the pain vanished. Mr. C. heard nothing of him for two days, when his daughter called to say he was quite well. The third case is rather equivocal—and at all events the pain had only commenced the same morning in a sudden manner. It might therefore as suddenly disappear under the mental and corporeal impression. We understand that the Earl of Egremont has derived considerable advantage from acupuncture; and therefore we should not be surprised if it become fashionable in rheumatism, which so often resists every means of cure. At the risk of coming under Mr. Churchill's censure we venture to doubt, not what he has said or done himself, but a similarity of success in the hands of others. Sincerely do we wish, however, that we may be wrong in our anticipations.

15. *Removal of an immense Tumour.** Mr. Liston we consider as one of the boldest operators of the present day. He lately removed a tumour weighing 44 pounds, involving the whole of the external genital organs, and descending below the knees. The hæmorrhage was tremendous, and compared by the bystanders to the discharge of water from a shower-bath! Syncope took place, and the vessels were secured. The man recovered.

* Mr. Liston. Edinb. Journal.

artery. No difficulty was met with in passing the ligature, or drawing it sufficiently tight with the fingers." *Ed. Journ. No. 1, New Series.*

18. *Suppression of Urine.** This is very generally a fatal disease. Mr. Bidwell, of Warbleton, has related a case of recovery in a man about 60 years of age, who had been three days without making any water. He complained of great pain in the region of the *bladder*, yet no water followed the introduction of the catheter. He was plethoric, and had a hard jarring pulse at 90. He had been bled in the erect posture to nearly three pounds without producing syncope. He was immersed in the warm bath—had a grain of digitalis every three hours, with a draught of camphor mixture, and sp. æth. nit. Fourth day, was much relieved, but still made no water. He was cupped over the lumbar region to the extent of *three pounds*, and was ordered one grain of calomel, and two of digitalis *every three hours*, together with ℥iss. of the infusion of digitalis at the same periods. These were tremendous doses, if the digitalis was good for any thing. After two days of this treatment, he was reported to have singultus, tendency to coma, and sinking pulse. The urinary secretion was still suspended. The digitalis was now omitted, and a camphorated æther mixture substituted. Large quantities of water were now discharged, and the patient recovered. We know not what to say to this case. Our readers must judge for themselves.

19. *Retention of Urine.*†—Mr. Holbrook invites the attention of his brethren to the effects of active purging in cases of obstruction to the flow of urine from the bladder. As the more usual causes of retention of urine are affections of the prostate gland in old people, and strictures of the urethra in all ages; and as the exciting causes are generally cold applied to the body, and excesses in drink, Mr. Holbrook concludes, that a spasmodic state of the muscles surrounding the urethra exists, with probably a relaxation of the bladder itself, and a fulness of the vessels about the neck of the urinary organ.

"In these cases, I have commonly found the patients complaining of pain and tension about the lower part of the belly; pain across the loins, with desire to pass urine, without the power; sickness; some degree of fever; frequently stupor, particularly in elderly persons. A common practice in these cases I know to be, if the catheter fail to be introduced, the immediate recourse to the warm bath, the exhibition of an opiate, and perhaps an opiate clyster; and if this fail, some leeches are then applied to the perineum; or, if the patient be of a full habit, blood is perhaps taken from the arm. All this time, the bowels are often totally neglected, or if any thing is done in that way, a little castor oil only has been exhibited, under the mistaken fear of adding to the irritation by more active medicines, and thus, in these cases, as well as in

* Mr. Bidwell. Med. and Phys. Journal. 284.
† Mr. Holbrook. Med. Repos. No. 112.

[illegible] the [illegible] to the [illegible] to the local affection. Diseases under this treatment certainly do frequently recover, but not, I believe, until the whole system has been greatly shaken, and reduction of the spasm is sometimes [illegible]. Frequently a few days before the withdrawing of the catheter, after an attempt at its introduction, [illegible] by producing the evacuation of the passage of the urine, removes the spasm, and the sympathy which exists between the rectum and the urethra, and the neck of the bladder. When the urine has been shown to pass from the [illegible] effect of simply withdrawing a bougie or catheter from the rectum to the urethra, how much more powerful must be the effect of taking into action all the combined powers for evacuating the contents of the bowels, which are so much accustomed to act together with the urinary organs, that we find it impossible in the healthy state to evacuate per anum, without also, at the same time, emptying the bladder. Instead, therefore, of trusting solely to the above-mentioned mode of treatment, if recourse is immediately had to a full dose of [illegible], [illegible] with a little extr. puls. [illegible], followed by a purgative [illegible] repeated every two or three hours, till the bowels are thoroughly cleansed, both from the remains of the ingesta and [illegible] secretions, some blood being previously taken from the arm, if the patient be of a full habit, or symptoms of inflammation appear [illegible] inconvenience from repeated [illegible], the complete relief would, in most instances, be procured in a few hours, provided no much time has not been lost before the means was employed, and, even then, a better chance will be afforded for the full effect of other remedies. Under these circumstances, the warm bath should be had recourse to, and, whether bleeding has or has not been premised, leeches should be applied to the perineum, [illegible] injections of oysters of warm water used, and opium administered, [illegible] originally and in the form of clyster, mixed with milk. When, from long distention, the bladder has entirely lost its power of contraction, if the catheter cannot be introduced, there only remains to puncture the bladder."

---

20. *Successful Operation.** Mr. Davies, of Tottenham Court-road, has been successful in restoring "the human face divine" to a shoemaker, who has lost his nose and great part of the upper lip, for more than three years by syphilis. The operation was performed at the Saint Pancras Work-house, on the 19th Sept. 1823, in the presence of Dr. Roots, Mr. Barrack, and other medical gentlemen. The operation was very complicated and difficult—and, from all accounts, remarkably successful. Mr. Davies is entitled to great praise in accomplishing the task which he imposed on himself.

---

* Mr. John Davies. Repository, No. 1.

IV.

MIDWIFERY.

Dr. Douglas to Dr. Johnson.

SIR,—I trust you will not impute to me the epithet—presumptive, for venturing to address you on the subject of a note in the last number (page 699) of the Medico-Chirurgical Review, rather discrediting the idea of its being practicable for the accoucheur to introduce his hand within the uterus, at the sixth month of utero-gestation, for the extraction of a retained placenta.

I beg to say, that I not only coincide with the opinion therein expressed; but further—that I would consider the attempt at such introduction scarcely justifiable: the fibres of the cervix uteri not being sufficiently developed so early as the sixth month, to admit of this procedure. It will, certainly, even at an earlier period, be occasionally found quite practicable to introduce the hand within the vagina, and to advance one or two fingers into the cavity of the uterus; and then either by imbedding the one into the substance of the placenta, or by getting hold of it between the two, effect the extraction, without having offered injurious violence to the uterine system.

Upon the supposition, that you may perhaps think this practical distinction of the term—*introducing the hand*, for the extraction of the placenta not unworthy of notice, when you may next be commenting on the subject; I would beg further to remark—although I do not consider that a retained placenta, in case of abortion, should be determinately extracted *at all hazards of violence;* yet, I hold it to be the duty of the accoucheur (for reasons too obvious here to be enumerated) to be anxious for the completion of that object.

I remain,

Your faithful and obedient servant,

Dublin, January, 1824. JOHN C. DOUGLAS, M. D.

---

2. *Obstetric Delinquency.** Mr. Gaitskell, a very able practitioner of Rotherhithe, has related a case which is well calculated to lacerate the feelings of every mind not callous to the sufferings of humanity. We shall give a short outline of the case.

A healthy woman, 31 years of age, was taken in labour on the 12th May, 1822, of her third child. The accoucheur, [not Mr. G.] on his second visit, promised delivery in about *two hours*—a promise, we think, indicative of great ignorance, as well as presumption. Not finding his prognosis likely to be fulfilled by the ordinary efforts of nature, "he had recourse to such strong mechanical power for the extraction of the child, as to require her being firmly held on the bed, and in this he continued for the space of three hours, with only short intervals of rest." During this time, the patient not only often requested time and patience, but informed the accoucheur, that she had frequent and strong desire to make water. Without attending

* Med. Repos. No. 119.

to any thing else, he dragged away, and [illegible] from the commencement of the labour (on his part denied) the time when a sudden gush of urine took place, occasioned by the rupture of the bladder, that viscus not having been emptied for 14 hours. On the 3d day, the urine and fæces passed involuntarily, she having no retentive power. After a fortnight's endurance of severe misery occasioned by the constant draining of the urine from the torn bladder into an extensive sore, Mr. Gaitskell was consulted, and learnt the foregoing history. He found the perineum lacerated quite into the rectum, the sphincter being completely divided in front—consequently the internal surface of the vagina, mouth of the womb, internal membrane of the rectum, and raw surface of the torn perineum, were constantly washed with urine." To give the bladder (which was torn in its cervix) a chance of healing, Mr. G. passed an elastic gum catheter into that viscus, through the urethra, leaving the external end to terminate in a quart wine bottle, while the other remained constantly in the bladder. By this expedient the bottle received the urine, and prevented the bed being wetted. This plan afforded the patient great comfort, and in six weeks allowed the bladder to assume a healing process. At the end of three months, the whole of the secreted urine passed by the urethra.

The healing of a *ruptured* urinary bladder is of such rare occurrence, that if Dr. Blundell and Mr. Gaitskell had not satisfied themselves of the fact of rupture by passing a female catheter through the opening into the vagina (the rupture was so extensive, that Dr. B. passed two fingers into the bladder) it might have been disputed by the profession. When the bladder sloughs, the opening remains for ever after unhealed, and a perpetual fistula is the consequence. There are very few instances on record to the contrary of this.

But notwithstanding this fortunate and unlooked-for termination of the ruptured bladder, the poor woman is now not only totally deprived of sexual sensation, but has an increasing prolapsus of the uterus and bladder, attended with pain, sense of weakness in the loins, and loss of retentive power in the rectum!

The perusal of this melancholy case ought to warn the young practitioner against unnecessary interference with the operations of nature in parturition. That the life of a female, at this interesting period of her existence, should be put in jeopardy—or that she should be condemned to years of misery, from impatience of temper in the practitioner, or ignorance of his profession, is a subject of serious regret, as it involves, in some degree, the credit of the profession at large. We think the unworthy member himself, if he is not completely callous, must carry a hell within his own breast. That his temporal concerns must also suffer from this piece of rash misconduct, there can be little doubt. Altogether we hope it will stand as a beacon to the junior orders of the profession.

---

3. *Vesico-Vaginal Fistula.* Dr. Cumin, of Glasgow, has related, in the last number of the Edinburgh Journal, an interesting case of this distressing accident, which was speedily cured by judicious treatment.

The patient was a young married woman, who entered the infirmary five weeks after parturition, with a fistulous opening of the bladder into the vagina, in consequence of a slough coming away ten or twelve days after delivery. Forceps had been used. The poor woman was, of course, in great distress, from the discharge and irritation of the urine. Dr. Cumin had a silver catheter (fixed by means of a contrivance originally proposed by Desault) introduced and retained in the bladder, by which means, in the course of ten or eleven days, the urine ceased to pass by the fistulous opening, and a complete cure was ultimately effected. We think Dr. C. was perfectly right in not keeping any thing in the vagina during the treatment; for certainly a sponge or other plug there must tend to keep the edges of the wound in the bladder apart.

"The instrument which I employed consisted of an oval steel spring covered with leather, and made so as to clasp round the pelvis and fasten over the sacrum; with straps to pass under the thighs, and prevent it from shifting upwards. In the centre, which rested on the symphysis pubis, a piece of metal was screwed on so as to admit between it and the spring a curved stalk, which could be slipped up or down, and fixed with a screw when properly adjusted. At the lower extremity of this stalk, was an aperture, through which a catheter was passed, and introduced into the bladder—then secured in its place by means of a narrow tape. In this manner a fixed point was obtained, and the motions of the catheter rendered inseparable from those of the bladder and pelvis." 65.

The rapidity of the cure was probably owing, as Dr. C. imagines, to the inflamed and highly irritated state of the parts, which rendered the closure of the opening more speedy when the irritating cause was removed. If such time has elapsed before treatment commences as allows the edges of the opening to become callous, it will be obviously necessary to excoriate them by means of cantharides, or some other vesicating application.

The profession is under obligations to Dr. C. for this case, and the description of the instrument used.

---

4. *Puerperal Convulsions.** Dr. Davies was called to a woman in the 35th year of her age, and in her first labour, having been in bad health during the greater part of her pregnancy. He was informed that in the course of the preceding night she had had two or three rigors, which turned out, as he supposes, to have been convulsions. She was reported to have made water, and to have had stools; yet the bladder was found distended, and from which two quarts of fluid were drawn off by the catheter. The woman found herself quite blind, and her pupils were totally insensible to the light. She complained of much pain in her head—and was extremely restless. Eighteen ounces of blood were abstracted, and an enema adminis-

---

* Dr. Henry Davies. Med. Repos. 114.

tered. The labour pains were frequent and feeble, the head of the child stationary. The forceps were applied, but a violent convulsion came on, which the sister said was similar in kind, though more violent in degree, than what the patient had had in the night. The forceps were withdrawn, and the ligature removed from the arm, so that blood might flow till the pulse became affected. The forceps were withdrawn—the child's head was perforated—and the body soon extracted. But although the convulsions subsided, there was no uterine contraction, and, after waiting some hours, Dr. Davis removed the placenta. Fainting fits ensued, which were relieved by stimulants, and the patient ultimately recovered.

This case tends to show what little reliance is to be placed on the reports of nurses and attendants; and how necessary it is that accoucheurs should examine the state of the bladder in such cases as these, whatever may be said by the nurse respecting the evacuation of the urine. Dr. Davis, naturally enough, we imagine, attributes the temporary blindness of this patient to congestion of blood in the vessels of the brain—and to the same account may fairly be placed the convulsions.

---

5. *Cæsarean Operation.** It may be observed that more success has attended this operation when performed on female slaves of colour, and in the West Indies, than on Europeans. Nor is this to be wondered at, when we consider the habits, diet, and constitutions of the class alluded to.

The case under review was a female slave, 35 years of age, who had been nearly sixty hours in labour. On examination it was found that the impeded labour was occasioned by a peculiar malformation of the pelvis, the small diameter of which, from pubes to *sacrum*, would scarcely admit the introduction of three fingers. From the symphysis pubis a tuberosity projected about an inch and a half towards the sacrum. The latter bone was much contracted towards the pubis. The transverse diameter of the pelvis was sufficient to permit the passage of the child, which was alive, the os tincæ being well dilated, and the head presenting. She had been delivered of four dead children at former periods. The operation was determined on, and performed in the following manner. With a common scalpel an incision was made through the integuments from the umbilicus to the pubis, so as to expose the linea alba. An opening was then made at the superior part of the incision through the aponeurosis of the linea alba, into the cavity of the abdomen. Introducing two fingers as a defence against wounding any of the viscera, the linea alba and peritoneum were divided with a curved bistoury to the full extent of the first incision. The uterus immediately presented itself, and into its superior part an incision was made about seven inches in length, when the fœtus and placenta were extracted as speedily as possible. In the instant of removing the fœtus a prolapsus of the

---

* Van Buren. Med. and Phys. Journal, No. 288.

intestines took place, but was immediately replaced, and kept *in situ* by an assistant. The lips of the external wound were brought in contact by sutures and adhesive plaster, care being taken not to include the peritoneum in the sutures. An 18-tail bandage was applied, and an anodyne exhibited. The patient did not lose more than eighteen ounces of blood during the operation, which she bore with astonishing fortitude. She recovered, after having experienced an alarming attack of peritoneal inflammation.

6. *Division of the Symphysis Pubis.** Dr. Manchini, Professor of Anatomy at Naples, has recently divided the symphysis pubis in two cases, where the delivery could not be effected by the natural process. In both instances the children were born alive, and did well. The mothers recovered. After the operation the patients were put into warm baths, and the farther separation of the bones and dilatation of the parts left to the efforts of Nature. On delivery, the bones were found to have receded from each other an inch and a half. In one case no reunion of the bones took place, in consequence (it is supposed) of their not having been brought into apposition after delivery, and the power of walking is not perfectly recovered. In the other case the bones were brought together and retained in situ by rollers. The bones united, and no inconvenience was sustained. Dr. Crawford was present at one of the operations.

V.

Physiology.

1. *Physiology of the Urinary Secretion.* It is acknowledged that the physiology of secretion is involved in deep obscurity. Some think that the glandular organs merely strain or separate the fluids from the blood—others believe that entirely new products are formed in the secerning vessels, and that no part of the peculiar secretion previously existed in the blood. A third party conceive that the *elements* of the various secretions pre-existed in the general circulation, and that they are combined, each according to its kind, in the glandular apparatus appointed for that purpose. This appears to be the more probable doctrine.

In respect to the urinary secretion, it is well known that, in general, there are between twenty and thirty different ingredients in it; but its characteristic component part is termed urea, a gellatinous animal substance always present in healthy urine.

It was to ascertain the state and comparative proportion of this in the blood, that Messrs. Prevost and Dumas have made many experiments—or rather repeated those previously made by M. Richerand—namely, the extirpation of the kidneys, from dogs and cats, rabbits not being found to bear these experiments well: One kidney is to be removed first, and when the wound is healed, (about 15 days,)

* Dr. Harrison. Med. and Phys. Journal, No. 328.

the other organ is to be taken away. The health is never affected by the first operation. In about three days after the removal of the second kidney, copious liquid brown stools, and vomiting of the same materials occur, with great disturbance of the system, as rapid and small pulse, short and laborious respiration. The animal dies between the fifth and ninth day. On dissection, effusions of clear limpid serum are found in the ventricles of the brain—the bronchiæ filled with mucus—the liver inflamed—the intestines containing liquid fæces—the urinary bladder strongly contracted.

It was estimated by our authors that a dog in health formed a drachm of urea daily, and it was found that five ounces of blood from a dog which had been deprived of its kidneys yielded more than a scruple of urea. The experiments of these gentlemen lead them to believe that the urea is *eliminated merely* by the kidneys in proportion as it is formed—and consequently that it accumulates in the circulation when the kidneys are removed. In this case, therefore, we must suppose that the urea is formed independent of the action of the kidney. *Where* it is formed, is not yet ascertained. *It is* known that in certain diseases of the liver, the urea disappears from the urine. If we apply this doctrine to diabetes, we may suppose that the saccharine matter is formed elsewhere than in the kidneys, and merely thrown off by them in solution.

---

2. *The Circulation.* Is it certain that the ancients considered the arteries to be the conductors *merely* of the animal spirits? How does the following passage, Pauli Æginetæ, quadrate with this opinion?

"Hæ arteriæ vero oblonga sunt vasa velut venæ, et duas tunicas habent, tum propter relatum motum, tum quod *sanguinem et spiritum* continent: et enascuntur ex corde, et disperguntur per omnes corporis partes."—*De Pulsibus, cap.* xii.

---

3. *Nervous System.** We are glad to see the commencement of a series of experimental researches on the functions of the nervous system, under the able auspices of Dr. Breschet and his associates. This first memoir is on the subject of digestion; and it is gratifying to find that the experiments of our Parisian neighbours have confirmed those of our own distinguished countryman, Dr. W. Philip, in respect to the division of the eighth pair of nerves.

The experiment is one of the oldest on the records of physiology. In all ages it was observed that the division of the par vagum disturbed the functions of the lungs and stomach, but it is to this last phenomenon that the attention of our authors is directed. Most experimenters have remarked that those animals who suffered the section of the eighth pair were harassed with nausea and vomiting—a

---

* Recherches Experimentales sur les Fonctions du Systeme Nerveux. 1er^e Memoire; de l'Influence du Systeme Nerveux sur la Digestion Stomachale. Par M. M. Breschet, Edwards, et Vavasseur. Archives Generales.

circumstance that proved the influence of these nerves on the stomach. On this point all are agreed—but not so on the precise effects of this section on the actual process of digestion. Ducrotay de Blainville concluded from experiments, that "by the division of these nerves the digestive powers of the stomach were totally annihilated." Mr. Brodie came to the same conclusion, though with a different object in view. He found the aliment undigested seven hours after the nerves had been cut. Legallois and Dupuy arrived at the same results. But it was reserved for our countryman, Dr. W. Philip, to push these experiments much farther—by proving, as our readers know, that when the nerves were divided, digestion might still be carried on, provided a stream of electricity were conveyed along the lower portion of nerve to the stomach. Our readers are also well aware that in consequence of simply dividing the pneumo-gastric nerves, without removing a piece, or keeping the divided extremities well apart, the experiments were vitiated, for the digestion, under such circumstances, went on, though in a somewhat imperfect manner. All these experiments have now been repeated by the authors in question, in varied modes, and on animals of different species, and the whole results are confirmatory of the statements of Dr. W. Philip. Instead of rabbits, however, our experimenters had recourse to much larger animals, as the horse, the dog, &c. We shall relate the following experiment on the first-named animal.

Three horses were selected, and all fed on oats after long abstinence. In one, the pneumo-gastric nerves were divided and a portion cut away—one horse was left untouched, and the third was managed in the following manner. The right par vagum was laid bare and between two and three inches of it excised. The left was also divided, and a portion of its lower extremity isolated, and encircled with a bit of lead, to which was fastened a wire that led to a galvanic apparatus. The electric circle was completed by introducing into the abdomen, below the stomach, the point of a conductor communicating with the opposite pile. Slight but constant contractions in the panniculus carnosus indicated the uninterrupted stream of electricity for seven hours. Early in the operation it was necessary to make a large opening in the horses' tracheæ that were operated on, to prevent suffocation.

The results of these experiments were very unequivocal. The digestion was complete in the animal untouched. In the horse subjected to galvanism the stomach was but little distended, and contained but a small quantity of fluid and of corn a little acted on. All the rest had passed into the cæcum, where it was found, for the most part, reduced to chyme. In short, the appearances were but little different from those in the sound animal. On the other hand, the stomach of the horse, whose pneumo-gastric nerves had been excised, was greatly distended, containing much clear and yellowish liquid and triple the quantity of corn remaining in the stomach of the galvanized animal. The greater part of the oats had suffered little or no alteration—a small quantity only appearing about half digested. In the cæcum was found only an aqueous fluid, with some debris of

straw, evidently the remains of a former digestion. Thus it was clear that in this horse no part of the corn eaten after a long fast had passed the pylorus, while the whole of that eaten by the sound horse, and two-thirds of that eaten by the galvanized animal, had advanced into the intestines. These experiments were repeated in the same manner on dogs and other animals with similar results.

From the above and many other experiments, which we need not detail here, our authors have come to the following conclusions.

1st. The simple section of the pneumo-gastric nerve, without loss of substance or disturbance of relative position, does not materially interrupt the process of digestion, but only renders it more slow.

2d. The section of the nerves, with loss of substance, diminishes considerably (and far more than the simple section) the digestive action of the stomach; but it does not entirely abolish that process.

3d. The section or destruction of a part of the spinal marrow, or the removal of a portion of the cerebrum, acts in like manner to the above on the digestive process.

4th. Narcotics administered so as to produce coma, equally diminish the power of digestion.

5th. Every thing that diminishes the sum total of nervous influence going to the stomach, enfeebles proportionally the process of digestion in that organ.

6th. Finally, when the digestion is almost completely suspended by excision of a portion of the pneumo-gastric nerves, we can, by means of galvanism, re-establish the digestive process in the stomach, and convert into chyme the aliment introduced into that organ, almost as quickly and completely as under ordinary circumstances of health.

These conclusions differ little or nothing from those at which Dr. Philip had arrived; but still the experimenters in question do not come completely into the opinion of our countryman, that the process of digestion is entirely owing to nervous influence. They acknowledge, however, that it is the most important of all the agents in this operation.

VI.

Legal Medicine.

1. *Dr. Castaing.** Most of our readers must have perused the afflictive trial of Dr. Castaing in the public papers, and have probably made up their minds as to the justice or injustice of the sentence. In the interrogations put to this unfortunate or guilty physician, he admitted that he had made toxicology his study—that he was acquainted with certain vegetable poisons, which left no trace of their action—that he had purchased acetate of morphine to make experiments on animals—that one of the persons deceased had drunk some hot wine in an inn with him—that a servant who tasted the

* London Med. Repos. No. 1. New Series.

wine found it sour—that the deceased had vomited—that he (Castaing) had mixed the acetate with an emetic substance for the purpose of experiments.

Whether the moral or circumstantial evidence was strong, does not appear. The medico-legal evidence was decidedly in Castaing's favour: thus, Laennec deposed that the deceased might have died of a phthisical complaint—though the symptoms might have been produced by poison—which he was inclined to believe the case. Dr. Michel believed that death was owing to phthisis, and not to poison. Dr. Petit thought the symptoms could not have been entirely owing to disease, but *might be* the result of poison. Two apothecaries deposed, that they had sold the prisoner acetate of morphine —and one of them 12 grains of the sulphate of morphine, (by mistake printed sulphate of *soda*.) Orfila deposed, that it was impossible from the *proces verbal* and the appearances, to conclude that the deceased had died by poison. The appearances on dissection might have been by morphine, but they might also have been the effect of disease. It was proved (or thought so by the jury) that Castaing had forged a will of the deceased. This was strong moral evidence, and we have no doubt that the great strength of the said moral evidence has never reached us; for we are bound to believe that a jury (in a case involving no political matters) even in France, would lean to the side of mercy, if they possibly could. He was convicted by a majority of only two—seven against five. It is curious that, in a country where so much importance is attached to legal medicine, no ear appears to have been given to the medical evidence, even of Orfila!—But *all* circumstances considered we fear Castaing was guilty!

---

2. *Forensic Phrenology.* Our readers are aware that Drs. Gall and Spurzheim place the organ of amativeness in the cerebellum, and some insulated facts recorded by authors seem to support the idea of an intimate relation between the brain and the genital organs. The following case related nearly 200 years ago by Hildanus will be read with interest by the phrenologists of the present day.

A consistory court was held at Berne in the year 1630, at which Hildanus and several other physicians assisted, in order to examine Michael Tutzler, 36 years of age, accused of impotency by his wife. Nothing external was defective; but the man himself confessed that eight years previously, he had received a severe blow on his head by a stick, which had deprived him of hearing in the right ear, and had caused for a time, involuntary discharge of urine. From that period "confitebatur *penem erigi non posse.*" Upon this report being made to the court by the medical committee, a divorce was granted.

---

3. *Homicide.** Claudius Noblin and John Jaunet, aged about five or six and twenty years each, had been drinking and carousing

---

* Journal Universel des Sciences Medicales, October, 1823.

in several cabarets, during the 15th November, 1821. About 4 P. M. they quarrelled with two other individuals (a man and his wife) the companions of their debauch. From words it came to blows; and Jaunet received one on the head by a bottle, which prostrated him on the floor. His associate (Noblin) who was, at the moment, engaged in combat with his female antagonist across a narrow table, fell also deprived of sense. This double defeat put an end to the fray, and the spectators hastened to afford assistance to Noblin and Jaunet. The latter, who had been merely stunned by the blow which he received, quickly recovered—but Noblin died on the spot. This circumstance coming to the ears of the police, the body was ordered to be disinterred on the 19th of November, *two days* after inhumation. On the body, there were few or no marks of external violence. The neck was short—the chest large—and much blood had escaped from both nostrils. The conjunctivæ were much injected. On dividing the cranial integuments, great quantities of black blood issued at each cut of the scalpel; and, on removing the skull, the vessels of the meninges, cerebrum, cerebellum, and in fact of the whole encephalon, were found enormously distended with blood. Besides this, there was an extravasation of blood into both lateral ventricles, especially the right—in short, there was here quite enough to account for the death of the patient independently of any external violence. On opening the chest, the lungs were found of a black colour, and extremely gorged with blood. It was thus evident that Noblin died in consequence of a violent determination of blood to the head and chest, accelerated no doubt by the state of inebriety and passion at the moment of the rencontre, and totally independent of any influence from an impression or blow *ab externo*.

Let us now revert to the case of Jaunet. His head presented a contused wound of nearly an inch in extent, accompanied by symptoms of concussion, which, however, were removed by quietude, low diet, and open bowels.

Now suppose Noblin had received this blow from the bottle, instead of Jaunet, what influence would the circumstance have had on the minds of the spectators and of the medical evidence?—It is to be feared that even the legal surgeon or physician would not have been able to divest himself entirely of prejudice on such an occasion. Upon serious reflection, however, it is manifest that the contusion received by Jaunet would not have altered for worse or for better the fate of Noblin, had the latter received it himself.

4. *Peritonitis resembling Poisoning.** A man 30 years of age, of good constitution, was seized after dinner, on the day before his marriage, with violent colicky pains, and sent immediately for a physician, who noted the following symptoms, viz. pallid countenance, with expression of great suffering—tongue and mouth dry—

* Journal Général. Aout, 1823.

thirst—constant nausea—vomiting of liquids tinged with wine—violent pains in the abdomen augmented by pressure, but no intumescence—no evacuations by stool—urine scanty—pulse concentrated. *Twelve leeches to the anus—lavements—diluents*—four ounces of linseed oil that had been taken were vomited up. The next morning brought some alleviation of the symptoms, and the man returned to his own home from the house of his brother, where he had passed the night. On his arrival all the symptoms returned with increased violence, especially the vomiting and abdominal pains. Nevertheless, as every disposition had been arranged for his nuptials, he repaired to the place appointed, and afterward to the festival common on such occasions. He was soon obliged to retire to bed, and to have emollient injections thrown up. A temporary relief followed; but was soon succeeded by intense fever, and increased vomiting. On the third morning the symptoms were the same, with the addition of abdominal tumefaction—no evacuation by stool—pulse small and concentrated—anxiety extreme—lipothymia. *Ptisans, lavements, semicupia, fomentations. 4th day.* The vomiting has ceased, but the abdominal pains continue. In the evening, these last became abated, but lipothymia supervened upon the slightest movement. He died on the night of the fourth day.

A death so unexpected, and so soon after a dinner, among his friends, gave rise to strange suspicions, especially as a person had been heard to say, that if he married the woman to whom he was engaged, he would not long survive the marriage. The Commissary of Police therefore gave orders that the body should be examined in a medico-legal manner.

Dissection. On opening the abdomen, a considerable effusion of coloured and slightly fetid liquid was found. This was afterward submitted to proper tests. The omentum was strongly injected, and adhered to the anterior parietes of the abdomen, and, in some places, to the surface of the intestines. The convolutions of the alimentary canal were adherent together in many places, with here and there membraniform flocculi of a purulent appearance. The superior surface of the liver was covered with an albuminous exudation, and the parenchymatous structure was gorged with blood. The internal parietes of the abdomen presented numerous traces of phlogosis, and some purulent exudations, with black spots, produced by congested blood—the mesenteric vessels highly injected. The interior of the œsophagus was natural—the stomach contained a few ounces of glairy and inodorous liquid, which was subjected to test—on its mucous surface, near the cardiac orifice, was a vividly red patch of no great extent—pylorus sound—some patches of red on the internal surface of the duodenum—as also on the mucous membrane of the small intestines, but less and less distinguishable in proportion as the distance from the stomach increased. The large intestines were sound, and no perforations were to be seen in any part of the alimentary canal. The liquids above mentioned exhibited no trace of poisonous impregnation, when submitted to the appropriate tests.

The evidence delivered in was, that the man's death was occasioned by a violent inflammation of the peritoneal covering of the abdominal viscera, without any poison being discovered in the alimentary canal.

"Enfin, ce fait prouve de nouveau la haute importance des remarques que l'on trouve dans les ouvrages de M.M. Fodere, Laisne, et Orfila, et desquelles on peut deduire l'aphorisme suivant;—*L'ensemble des symptomes de divers empoisonnemens peut être produit par certaines alterations spontanées des organes digestifs.*"

Our readers will be better satisfied with the medico-legal decision of the physicians than with the medical treatment of the case. A young man seized with abdominal inflammation on the eve of his nuptials, was suffered to die of that inflammation without a vein being opened to check the progress of the disease!

5. *Poisoning by Nux Vomica.** A woman, having a quarrel with her husband, swallowed nearly half an ounce of nux vomica. Half an hour afterward she was found by Mr. O. sitting quite collected and tranquil, her pulse 80. Some little time was lost before an emetic could be procured, which was taken, but did not produce effect. In a few minutes she was seized with convulsions, slight and transient at first, but rapidly increasing in force and duration. In one of these she expired, about an hour from the time she swallowed the poison. The vessels of the pia mater were found turgid with blood—an ounce of fluid in the ventricles—heart flaccid and empty—a slightly red patch, nearly half a hand's breadth in size, on the internal coat. No other morbid appearance.

6. *Infanticide.*† A woman was tried at a county-town in Scotland for child murder. She acknowledged concealment of pregnancy. The child's body was found in a press covered with earth. She confessed having placed it there. A piece of twisted calico was drawn twice round the neck, so as to produce a remarkable groove. Another piece was applied tight over the face, and knotted behind the head, so as to flatten the nose. The face was turgid and livid—the conjunctivæ strongly injected with blood. The umbilical cord was divided eight inches from the navel, and had not been tied. No other mark of violence on the body. The lungs were free from putridity, and swam in water, the same as when they are inflated. The air-cells visibly contained air. The examination was eleven days after delivery. The medical witness for the crown deposed, from these appearances, that the child must have been born alive, and that its death must have been caused by suffocation. Three other medical men for the prisoner deposed unanimously, *that if the child had been dead for the period of eleven days, it was impossible for any me-*

* Mr. Ollier. Med. Repos. 114.
† Ed. Journal, No. I. New Series, Jan. 1824.

dical man to come to a conclusion as to whether the child had been alive at the time of birth. The woman was accordingly acquitted.

The medical evidence for the crown was, we think, perfectly justified in his deposition. Not so the evidence for the prisoner. There was no putrefaction to account for the lungs swimming in water at so early a period after death. The lungs indeed are peculiarly backward in running into putrefaction, if they have not been used in breathing. We accord with our cotemporary of the North in the severe animadversions which he has made on the conduct of the three medical witnesses above alluded to, who, by the way, had not been present at the opening of the body. The witness for the crown, however, was remiss in not examining whether the child bore marks of hæmorrhage from the untied navel-string. The question, on this subject seems to have done injury to the crown witness.

X.

THE LANCET.

OR THE

Property and Privileges of Lecturers, Hospitals, and Medical Societies, considered.

——————Denique teipsum
Concute, num qua tibi vitiorum inseverit olim
Natura, aut etiam consuetudo mala.

This "minute instrument of mighty mischief" is in a great rage with us for having doubted the morality of publishing, *without authority or consent*, the lectures of a medical teacher. The Lancet professes to be utterly at a loss to understand such morality or immorality, comparing our squeamishness, on this point, to that of Beau Brommel, who held it to be immoral to drink porter, but virtuous to drink port wine with his cheese! Notwithstanding this very *apposite* comparison, we not only repeat our conviction that the transaction alluded to is immoral, (and illegal too, as the Lancet well knows,) but we have no hesitation in pronouncing it to be little less than *dishonest*—challenging the Lancet to offer any serious or just argument to the contrary. The only argument offered by the Lancet is this—that as parliamentary reports are permitted to be published, *though unauthorized*, so may the private prelections of a medical teacher. We are really astonished that any man pretending to a modicum of common sense, should attempt to draw a parallel between the public debates in a legislative assembly, where there is no property claimed, and the private lectures of an individual, constructed with great labour and attended with great expense! Will not every man of

common sense and common probity acknowledge, that the fee for admission to a lecture is merely a compensation for the personal benefit which the individual hearer may derive from the lecture so delivered, without the shadow of an implied right or permission for that hearer to publish the lecture next day for his own profit? If the Lancet can produce a single respectable testimony in favour of his parallel, or in negation of the view which we here take of the matter, we will consent to give up the argument.* Should such a monstrous principle, as that acted on by the Lancet, be once generally admitted and put in force, there would soon be an end to lectures entirely. Students would not be at the trouble or expense of feeing or attending lectures, if they could have them taken down and printed at sixpence per week. But granting that such an extreme case were not likely to occur, there is an evil, of great moment, which must inevitably attend this breach of confidence, of honour, and of honesty. We mean the perpetual restraint which it will place on the freedom of lecturers; preventing them from illustrating their precepts by examples drawn from public or private practice. What man will venture to relate the errors which he has committed or seen committed, when these are to be blazoned forth next day in the newspapers?†

Lectures are, from their very nature, unfit for the public eye—more especially the non-professional public, before whom they are now dragged and hawked about by unprincipled literary poachers. The most valuable portion of these lectures consists of the illustrations founded on occurrences in practice, and which are delivered in confidence. The system of espionage and forcible publication now pursued will, in a short time, annihilate this source of information for students, who will be the greatest sufferers in the end.

But it is not to the lecture-room alone that the baleful influence of a private spy and public informer is confined. His vampyre presence will chill the current of communication between preceptor and pupil in the clinical ward, and in the operating theatre. What surgeon's reputation is safe, with a man in mask at his elbow, taking notes for newspapers? What will be thought of the humanity, or rather inhumanity of the following disclosure? "A man was brought into the theatre (here the name of the hospital and operator is stated)

---

* The anecdote of Dugald Stewart (who may be considered as tolerable good authority on such a point) is well known. Observing a student one day taking notes at his lectures, he stopped suddenly, and declared he would not lecture any more while any one took notes. Such notes, he remarked, might be published, and such publication would be highly improper in itself, and injurious to the professor.

† It is to be particularly remembered, that the LANCET is not addressed exclusively to the profession, but to society at large; while its more striking parts are regularly forwarded to the metropolitan newspapers, in order to give greater publicity to the work, as we shall show farther on. Nay, it is posted up on boards in the streets, like Dr. Eady's advertisements, the Bonassus, or the murder of Weare! Let any one walk through the Strand, and convince himself.

to undergo the operation of lithotomy; *but after being on the table three quarters of an hour, five or six unsuccessful attempts to introduce the gorget into the bladder having been made, he was carried back to the ward.*" This statement was not less barbarous than *false*. The gorget *had* entered the bladder; but owing to the state of disease in the prostate gland and other unforeseen circumstances, the stone was so situated that no surgeon could have extracted it. And granting that the case had been as stated in the Lancet, of what use to the profession, we ask, was the publication of it? No man can command success in surgical operations—and if a surgeon fail from want of dexterity, he suffers mortification enough, Heaven knows, in the operation-room, without being put to the cruel and dæmoniacal torture of seeing the failure blazoned forth in the public prints. The man who could thus wantonly abuse the trust which is, by implied compact, vested in every student's honour, and thus lacerate the feelings of an individual, whose operations he was permitted to witness—

"Is fit for treason, stratagems, and spoils."

But this outrage on the common feelings and professional character of the medical officers of public institutions, must, should it continue, be attended with great detriment to those who seek refuge and relief in such asylums. The surgeon who has a secret spy upon his actions, ready to publish, and most likely to distort, every failure, will not risk his character by performing operations where there is much doubt of success—and thus many a wretched object will be left to pine in unmitigated sufferings, in consequence of this unprincipled system of dragging, *nolens volens*, every transaction that passes in an hospital before the public eye.

Rendered bold in injustice, from want of a curb, the Lancet commenced its predatory warfare on the literary property of the Medico-Chirurgical Society, unblushingly publishing the substance of the papers read at its meetings, and thus anticipating the volumes of their Transactions! The Society very properly put a stop to this iniquitous proceeding, and immediately all the scurrility of Billingsgate was let loose by the Lancet against the most respectable medical association in Europe! The arguments which the Lancet urges against this prohibition, on the part of the Society are tragi-comic enough—namely, that the non-promulgation of the papers in the LANCET (where they would have "*a more immediate and extensive* REPUTATION!!") must be the destruction of *thousands of lives* annually!

"Now let us conceive that in this present month of January some facts of this description (useful facts) are presented to the Society, and accepted by it;—on the general application of which *the saving of thousands of lives, of millions of pangs and throes of agonizing humanity depends*. What would a stranger suppose that this Society, full, as it must be, of humanity and erudition, would do in such a case? He would imagine that he saw the members breaking forth with that tumultuous exultation—*quà data porta ruunt*—some at the front, some at the rear:—apothecaries and physicians, men-mid-

wives and surgeons, dentists and oculists, licentiates and fellows, in most admired disorder, to publish the glad tidings far and wide, and pour balm into the wounds of human suffering. He certainly would be a little astonished, if, instead of this, he saw the society *deliberately contriving to conceal the knowledge it had acquired*, till the end of the year, *lest its profits* might be diminished in its account with the *bookseller*. Really Dr. Solomon was not to be *compared in meanness to this*. We would be glad to know what is the worst feature of *quackery*, but a profligate contempt of the welfare of mankind, when put in the balance against the pecuniary interests of the medical practitioner? And what can be a more complete specimen of this than the *deliberate suppression of useful knowledge?* If the guilt of this disregard of public welfare be in proportion to the smallness of the advantage which the society derives from it; *the wretch who adulterates drugs and destroys a patient, that he might pocket a penny on a pill, would not be entitled to rank so high in enormity as this Society, &c.*"—LANCET, SUNDAY, JAN. 11th.

We have copied the above as a fair specimen of the *Lancet*. The mock-heroic bombast, and sentimental lachrymation in the beginning of the passage, can only be equalled by the Billingsgate ribaldry, and the rancorous vituperation of its conclusion. The idea of the Transactions of the Medico-Chirurgical Society acquiring *reputation* by appearing in the LANCET, in company with the "Morbid Parts of Dr. Collyer," and other choice morceaux, is so exquisitely ludicrous that our sides were ready to burst on perusing the passage, which must afford no little entertainment to the members of that association.

The profession, and the public at large, must have remarked that, of late, scarcely a newspaper is published which does not contain extracts from certain weekly medical journals, and more especially the Lancet. Have the editors of newspapers all at once discovered a mine of information in these sources, which never before existed? No such thing. The manœuvre now is, to cull out extracts from these twopenny-halfpenny pamphlets, and send them to the newspapers the day before the pamphlets themselves are published, with a solicitation that they may be early inserted, or if that cannot be accomplished, they are paid for as *advertisements*, being considered the best kind of puff and of the newest fashion. Now for an example. On Sunday the 11th of January, 1824, was published No. 2 of Vol. II. of the Lancet. On that day, of course, there being no shops open in the metropolis, the Lancet could be in the hands of very few—in fact, nobody scarcely sees the work on that day, unless he goes on purpose to Catherine-Street to purchase it. *At six o'clock* on the following morning (Monday) the tirade against the Medico-Chirurgical Society was published, as an extract from the Lancet, in that part of the *Morning Chronicle* which is notoriously set up and imposed, if not worked off, on the Saturday night preceding! Now we ask any man, who knows aught of the concerns of the press, whether it is likely that the editor of the Morning Chronicle spends his *Sundays* in searching for matter in medical journals *published that day*.

to supply his newspaper, which is printed *that night, or rather the night before?* The fact of the extract being furnished by the Lancet itself—and that on the Saturday, is as clear as the sun at noonday; —and, practising such disingenuous arts as these, the Lancet has set itself up, not merely as a censor of printed works, but of the *conduct* of individuals in the medical profession! The *wall-bill* (like that of Eady or the Bonassus) for the Lancet of that week, was thus headed —"HUMBUG OF THE MEDICO-CHIRURGICAL SOCIETY." Such is the taste, such the decorum of a paper which is to regulate the moral and medical conduct of the profession! The following, among others, is a sample of its modesty. "We have the satisfaction of stating that persons who, from their situation, might be supposed to be hostile to the plan of publishing hospital cases, have acknowledged (where and when appears not on record) that *considerable talent* is displayed in the reports which we have presented to the profession." We acknowledge that "*considerable talent*" (especially of invention) is necessary to enable any one to traverse the wards of the metropolitan hospitals, *invisible* to human eyes, (which quality the Lancet lays claim to,) and, from the backs of tickets, make out a clear and authentic clinical history of the cases therein contained. This, we repeat, requires "considerable talent," especially when it is affirmed that such hospital reports must be far superior to those published by the hospital medical officers themselves! "*Our* reports (says the Lancet, with its usual *delicacy*) will have this advantage over any that might be published by the surgeons of the different institutions—that while *they* would have an interest in *concealing* many circumstances which might reflect discredit on themselves," &c. With this open insult and vile insinuation in its mouth, the Lancet has the effrontery to push itself, as a spy, into our hospitals; and there plunder and pilfer whatever comes in its way!

Considering the ways and means which the Lancet takes to degrade the profession and vilify its members, through the medium of the public prints, we think it is high time for the medical officers of hospitals to adopt precautions against the domiciliary visits of such lawless freebooters. The case of the Medico-Chirurgical Society is a sufficient example of the necessity of such measures.*

In our last number we hinted at the impropriety of jumbling politics, theatrical criticisms, and other non-professional subjects, in a medical review. We have always been of opinion that this is an unnatural union. Like the famous image in the vision of Daniel, it is formed of repulsive materials. The iron and clay will not coalesce—cannot long amalgamate.

"Pergis pugnantia secum
Frontibus adversis componere."

Our rod of correction, though very gently applied, has had the desired effect in this respect. Since our last, the LANCET has drop-

* The Society of Apothecaries have also taken measures to secure their property against literary thieves. This has raised another howl against such old-fashioned and squeamish morality.

ped, one by one, its theatricals, its politics, and even its chess problems. It has ceased, in some measure, to be ridiculous—but it steadily perseveres in being unjust. In its angry denunciation against us, it asserted, that it would not leave off its buffoonery, lest its pages should become "*as uniformly dull as those of the Medico-Chirurgical Review.*" To this we reply—better dull than indecent. The Medico-Chirurgical Review will never sully its pages by the details of unnatural crimes or propensities to excite the vulgar stare. Our Journal's olfactories are not, thank God, so apt as those of the Lancet at smelling out such dirty suits. It does not aim at the popularity of a pot-house or a smoking-club. A time will come when the bubble of the Lancet's reputation will burst, blown up as it now is, by the baser passions of the baser portion of society. A time will come when the "Morbid Parts of Dr. Collyer" (as the Lancet's wall-bills used to be headed) will be too stale, even for the rabble—and when the hospital and lecture-room will be closed against professional traducers. It will then be seen whose pages are dullest.

We shall advert to but one more of the *just and honourable* callings taken up by the LANCET—*the censorship of individual speakers in medical societies.* This practice, with the Lancet's usual strength of argument, or rather its abortive sophistry, will be defended on the principle that newspapers are in the habit of criticising actors in a theatre, lawyers at the bar, and members of parliament in the senate. It will be of no use to urge that the members of a medical society associate for the purpose of communicating facts or discussing doctrines—and not for the display of oratory. Criticisms, therefore, on the language or style of speaking, in these societies, are as unjust as they are injurious. They can only encourage declamation, and repress the communication of useful knowledge.

The LANCET has taken our advice on more than one important point, abusing us all the time for having offered that advice—a sure proof that the truth of the admonition was felt, though not acknowledged. We shall, therefore, conclude this notice by recommending the LANCET to set seriously about the work of reformation. We advise it to leave off its habits of literary pilfering—to cease pushing its uninvited and unwelcome visage into societies, hospitals, and lecture-rooms with the express design of breaking the eighth commandment—to relinquish the office of medical jackall to the newspapers, and pander to the worst passions of human nature—to abstain from vituperating the profession, by addressing criticisms and reports to the non-professional public—to post not up its placards with those of Warren's blacking, thereby doing all that it can to tarnish the character of physic and surgery—lastly, to confine its soi-disant "considerable talent" to the legitimate objects and pursuits of other journals, the publication of honestly acquired original papers, or the review of printed works. Whenever the Lancet restricts its operations within the rules of professional propriety and decorum, it will find most of its cotemporaries (now stigmatized as "cramped and debilitated by the trammels of professional sophistry,") its equals, and many of them its superiors.

XI.

EXTRA LIMITES.

I.

Facts and Observations in Refutation of Sir Gilbert Blane's Doctrines as to the Contagious Nature of Yellow Fever. By A. MUSGRAVE, M.D. of Antigua; Physician to His Excellency the Governor, and formerly President of the Royal Medical Society of Edinburgh.

TO THE EDITOR OF THE MEDICO-CHIRURGICAL REVIEW.

" He studied well the point, and found
" His Foe's conclusions were not sound,
" From premises erroneous brought,
" And, therefore, the deduction's naught."—SWIFT.

SIR,

Your Number for March has just put me in possession of the only notice, which has yet reached this part of the world, of Sir Gilbert Blane's last Dissertation on Yellow Fever, wherein he so warmly renews the discussion of the contagious nature of that disease; and, as some weeks, at least, must necessarily elapse before I can obtain a perusal of the work containing it, I shall, at once, avail myself of the facility afforded by the "Extra Limites" department of your valuable journal, to disseminate, more widely and expeditiously than could be effected through any other medium, some antidote to the poison which opinions, emanating from authority primâ facie so conclusive, are too well calculated to instil into the public mind—opinions (it must be admitted) not supported "with that dignified coolness and candour, which *becomes* a liberal profession."* I shall, nevertheless, endeavour, in this communication, to refute them, not by intemperate assertions or any train of reasoning which there is too much cause to presume would be again summarily dismissed as "shallow and perverted;"† but, by a plain exposition of facts of such authentic and incontestable character, as must render all reasoning superfluous.

* Blane's Medical Logic, 2d edition, p. 183.
† Medico-Chirurgical Review for March, 1823, p. 741.

In order to accomplish my object in the least exceptionable manner, I purpose (in the absence of Sir Gilbert's last publication) to examine, in succession, the validity of each of his strongest points, as set forth in the 2d edition of his Medical Logic, page 228, or "those considerations" which, he thinks, (even should every other view of the subject fail in proving decisive) "must, in minds prejudiced or unprejudiced, effectually cast the balance in favour of contagion"—and in doing this, I shall, I think, make it appear most convincingly to your readers, that, in medicine as well as in religion, the conduct of preceptors does not always supply the best practical illustration of the truth of their doctrines—for if it be conceded (as I apprehend it must) that no logic can be worse, or in other words, no reasoning more fallacious or unsound, than that by which positive and highly important conclusions are deduced from premises, not only doubtful, but absolutely false; then will it presently be shown (as far as recent occurrences are allowed to operate in proof) that Sir Gilbert Blane, in his writings on the Contagious Nature of Yellow Fever, has most illogically betrayed a total disregard of those very precepts which he has himself been at such pains to inculcate.

"It is a melancholy truth, that there is, perhaps, no department of human knowledge in which there is so great a want of correctness with regard to recorded observations, as well as reasonings, as in medicine. We ought, therefore, to be strongly fenced against the inroads of error in others, as well as ourselves."—*Blane's Medical Logic, 2d edition, p. 242.*

But to proceed.—The first consideration which Sir Gilbert conceives to be decisive in establishing his favourite doctrine, he gives in the following words:—"The evidence in proof of its being actually imported from sea by particular ships, communicating it to the spot where the landing is made, and spreading from them to all communicating parts, whether contiguous or remote."

Could such evidence be in reality obtained, the question would undoubtedly be silenced at once and for ever; but I have no hesitation in affirming, that this confident but gratuitous assertion is directly at variance with the experience of every practitioner now resident in the West Indies.*

* This remark applies more particularly to the last nine years, the term of my own local knowledge and observation—and it may not, perhaps, be deemed altogether irrelevant, or an unpardonable degree of egotism, if I take an opportunity in this place, with reference to Sir Gilbert's contemptuous allusion to my former communication, to state those circumstances which I regard as affording me some fair pretensions to credit from the profession at large. It is most certainly unfortunate that I can advance no claim to the character of a medical

In my letter to Dr. Fergusson, detailing the history of the epidemic which prevailed in Antigua in 1816–17, I stated, that no suspicion of the disease having been introduced by importation had been even hinted at by any individual whatever, and I, at the same time, adduced documents to establish that such could not, under the circumstances of its first appearance, have possibly been the case. I also adverted to the conclusive inference to be drawn from the perfect immunity enjoyed at that time by the Islands of St. Kitts, Nevis, and Montserrat, under a constant intercourse with us, unrestrained by any law or measure of precaution.

Subsequently to 1817, none but sporadic cases of the more concentrated forms of fever have been met with in St. John's, but our neighbours just alluded to have not been equally fortunate. In 1818, a most malignant and fatal epidemic raged at St. Kitts. The rate of mortality was exceedingly great—persons who had escaped the disease here in 1816, fell victims to it there—vessels arrived at this port daily, with these melancholy accounts—nay, a fatal case was actually imported into the most sickly part of the Island, (English Harbour) and yet we saw nothing of those "tragical effects" which have given rise, on other occasions, to Sir Gilbert's "deepest grief and concern." In pursuance, however, of my plan, which forbids my advancing any thing unsupported by facts resting on irrefragable testimony, I shall, at once, refer your readers to an annexed extract from Deputy Inspector Hartle's Half-yearly Report for June, 1821, as principal medical officer in this Island, transmitted officially to our Governor, Sir Benjamin D'Urban, and by His Excellency's kind permission, and Dr. Hartle's friendly sanction, at present in my possession, to be used in any manner that may be most conducive to the result I profess to have in view—The counteraction,

veteran—nay, so far from being able to do so, I am obliged to acknowledge that I must be at least twenty years longer a sojourner in the world before the whole sum of my existence can equal the already completed period of Sir Gilbert's "professional meditation and experience." I have however been *nine years*, as just stated, extensively engaged in tropical practice, and, during the whole of that time, independently of a wide range of private attendance, have had charge of the only hospital on the civil establishment of the Island, (into which all seamen from merchant vessels are received) and generally acted for the military stationed in St. John's.

In addition to these advantages, I reckon it not a little, that through the kind attention of our Governors, Major-Generals Ramsay and Sir B. D'Urban, I have had free access to all official documents relating to any epidemic diseases which may have chanced to prevail within the circle of their military command, and have thus been enabled to compare my own impressions and the results of personal observation, with the sentiments and experience of others.

namely, of "baneful impressions" which it is impossible for Sir Gilbert himself to deprecate more fervently or sincerely than I do. (*See Appendix* A.)

So forcibly does the extract here referred to, appear to me to bear upon the question—so deserving in every point of view to be considered an "experimentum crusis," that I cannot help inquiring, before I proceed with my proofs, whether, if Sir Gilbert himself had been called upon to devise some *single* test on which he would be satisfied to rest the whole merits of the case, he could possibly have dictated one more trying or unexceptionable? To my limited comprehension, it would seem peculiarly calculated to bring instant and full conviction to every candid and impartial mind, even if it stood alone and unsupported. That it fortunately, however, does not stand alone, the narratives comprised in the Appendix B. will abundantly testify.

To the truth and accuracy of every particular recorded in these documents, I most cordially subscribe. The facts, although not occurring under my immediate observation, were completely within my knowledge. They were matter of public notoriety, and the subject of general interest and conversation among all classes of the community. Captain Newcombe and his officers visited St. John's repeatedly during the prevalence of this fever among their crew, and repeatedly have I had the pleasure of meeting them in society, without observing that the slightest apprehension was excited lest the disease should be thus transported to this part of the Island; and the result most fully justified the implicit reliance of the inhabitants on its non-infectious nature.

During the convalescence of a midshipman attached to the Pyramus, I was consulted by a gentleman of large family, (most of its members recently from England) on the expediency of having the young gentleman removed to his house in a distant part of the country, as there existed some connexion between their families, and he was anxious to contribute to his rapid recovery by change of air. I frankly stated my firm conviction, that no danger would be incurred by such a measure, but, at the same time, requested that, if he himself entertained any doubts upon the subject, he would be guided by his own opinion. He, however, thought proper to act upon mine. The young man was accordingly, at once, removed from an hospital, crowded with patients in every stage of this malignant and fatal fever—highly malignant and fatal, as will appear from the annexed returns*—where he had just

* Vide Appendix B.

suffered an attack in his own person; yet the gentleman's family into which he was received continued to enjoy uninterrupted health.

So far, I think, it has been satisfactorily shown, that the disease cannot be imported into an island by any ship or vessel so as to infect the healthy inhabitants. The appendix C. containing a letter from my friend Dr. Crichton, formerly principal Surgeon to the Naval Hospital at English Harbour, and at present engaged in private practice in this town, will sufficiently establish, that it is equally impossible, on the other hand, to communicate it from an island to the crew of any ship or vessel which carries with her no local cause in her holds—and this statement of Dr. Crichton's is amply confirmed by the singularly decisive fact (more irresistible than volumes of argument) to be found in Dr. Dyett's History of the Montserrat Epidemic, (*see Appendix* D.) where he mentions, that a young European, named Farrile, sickened with yellow fever the day after he embarked for England on board the merchant ship Arethusa, in August, 1821, (the disease being then prevalent in the Island) and died, at sea, with every malignant symptom of the disease, the crew continuing, during the voyage, exempt from every thing like complaint.

Sir Gilbert's SECOND CONSIDERATION, decisive as to the contagious nature of yellow fever, is "The established fact, that its progress can be arrested by the separation of the infected from the sound"—to disprove the validity of which, even divested of its intimate connexion with the first, which has just passed under review, will require a very brief discussion.

It will be remembered, that the first cases which ushered in the epidemic of 1816-17 in this Island, were removed from St. John's, as soon as they were discovered, to the Hospital situated on Rat Island, a small insulated Rock considerably and directly to leeward of the town—that at the time of their removal, and, indeed, for several days afterward, no other cases were heard of; and, when such did occur, it was decidedly established, by the most minute investigation, that the individuals affected had held no sort of communication with those who had been first attacked.*

It will further be remarked in the several narratives detailed in the Appendices to this communication, that the *sick* were repeatedly landed from the different vessels without the slightest effect in arresting the progress of the disease—while a removal of the *whole crew* never failed, at once, to put an end to its prevalence; notwithstanding the intercourse between the suf-

* Medico-Chirurgical Transactions, Vol. IX.

fevers and those who had escaped, continued altogether without restriction:—And, lastly, the separation which alone can be effectual—that from the local causes—will be found clearly pointed out in the circumstances stated by Dr. Dyett as occurring in the family which first suffered from the epidemic of Montserrat. After losing two of their number, the survivors of that family fled in alarm to the country, where they, and all around them, continued for some weeks in perfect health, but as soon as a deceitful pause in the succession of patients in town allured them back to their former residence, four fresh cases (one of them fatal) furnished a lamentable proof of the circumscribed source of this most dreadful malady.*

I could multiply, to any extent, examples of this kind, but even those already enumerated may probably be deemed superfluous; for it surely can require no subtlety of argument to demonstrate, that over the progress of a disease, which cannot be extended by the *most unlimited intercourse*, separation can exercise no influence, however trifling—and that yellow fever cannot be propagated by intercourse, I trust I have already established to the satisfaction of every rational mind.

I shall, therefore, dismiss this "consideration" by contrasting the marked effect of separation where we had to contend against a disease, really imported and decidedly infectious.

I was, in 1819, requested by one of my professional brethren, to look at a patient of his, labouring under, what he stated, at the time, to be aggravated varicella—I, at once, recognised a tolerably severe case of smallpox, and, on a *full* consultation of the more experienced practitioners, it was unanimously decided to be so. We ascertained, beyond a doubt, that a member of the family, to which this person belonged, had recently arrived from St. Bartholomew's, where the disease was extensively and fatally prevailing, and where he himself had gone through an attack. Five of the number in the house which he inhabited had not been vaccinated, and they all subsequently took the infection. They were, however, successively removed, under the authority of the Commander-in-Chief, to Fort James, (which bears the same relative position as Rat Island, being directly to leeward of the town (and one case only occurred afterward in their neighbourhood. It was under the confluent form. The subject was a girl, about fourteen years of age, and a patient of my own, whose friends peremptorily objected to her being taken

---

* See, also, my Note to Dr. Dyett's History of the Montserrat Epidemic, Appendix D.

from St. John's; but, by preventing all communication, except with the vaccinated or those who had gone through smallpox, an effectual stop was put to the dissemination of this most loathsome distemper; although, from the difficulties encountered in rendering the practice of vaccination general, I have little doubt that, at least, one-third of the whole mass of our population would have been, at that time, obnoxious to its influence, had the disease been permitted to continue its progress undisturbed.

Sir Gilbert's THIRD CONSIDERATION, which next presents itself for examination, is "The difference of this pestilential form of the disease from the other two, in rendering those who have gone through it unsusceptible of a second attack.

To enter into a laboured refutation of this supposed peculiarity, would be decidedly out of place here, where recent facts, and such as are not yet before the public, are alone intended to be recorded.* The results of my own observation are already before the medical world; and Dr. Bancroft has, in my opinion, silenced every reasonable doubt on the question, in the Sequel to his Essay published in 1817. One additional and fatal proof, however, of the fallacy of such a notion, will be found among Dr. Hartle's Observations on the Fever which prevailed on Board the Pyramus Frigate.

Sir Gilbert's FOURTH CONSIDERATION appears to me so frivolous, as scarcely to merit serious refutation; for we find it gravely laid down as a chief means of distinguishing between diseases, contended to be essentially different, and to require opposite modes of treatment, that "greater numbers are affected by the one, and with symptoms more intense and mortal."

Now, I must here be permitted to use the language of the veteran Baronet himself, and call upon all persons of "common understanding, whose minds are not indelibly imbued with the dogmas of *contagion*," to say, whether this augmented intensity and general prevalence are to be considered as establishing such distinction, or whether it would not be more consonant to reason to infer from them, that the difference is only in degree, and that the more aggravated type supposed to

* I have, in conformity with this professed resolution to trouble your readers with nothing which has been already presented to them through any other medium, purposely avoided all reference to recent publications, more particularly those of Dr. Jackson and Mr. O'Halloran, on the late Fevers in Spain, which so amply corroborate the opinions I am here attempting to support. Dr. Jackson states, that during the epidemic of 1820, twenty well-authenticated instances came within his knowledge, of persons being attacked who had the disease before.

constitute a disease sui generis is in fact nothing more than a highly concentrated form, which the ordinary remittent can assume under particular circumstances.

To say the truth, nothing can be more inconsistent or absurd than the different attempts at establishing diagnostic marks between these diseases to be found in the respective works of those who deny their identity. At this moment, while committing these hasty observations to paper, I have before me the various descriptions promulgated by the leading advocates of Sir Gilbert's doctrines, whom, as professing similar opinions, we should expect to agree, at least, in their exposition of those grounds on which alone such opinions could be legitimately founded. Yet, so far from observing this essential coincidence, we find them materially at variance, and meet at every page with endless contradictions. Dr. Chisholm tells us, that black vomit is improperly considered characteristic of the Bulam fever, and Sir Gilbert thinks with him. Mr. Pym declares that it is the grand test by which the nature of the disease is to be decided. Dr. Chisholm describes the discolouration of the skin in his malignant pestilential fever as being *dark* or *dingy*. We find the same thing compared, by Mr. Pym, to the tint of a *pale* lemon. Retention of urine is, by one, considered distinctive of the infectious form; but, by another, is enumerated among the symptoms of the bilious remittent. The seat of the headach —the state of the bowels—the varieties in the pulse—and extent of the hæmorrhages, are attempted to be called in aid by all, but their peculiarities are applied in the most opposite manner by each. I shall, therefore, in concluding the discussion of this 5th consideration, only entreat the juniors of the profession, destined for Tropical practice, and whom I can conceive to be wading in anxious uncertainty through the troubled sea of contradictory statements, to be assured, on the faith of an honest man, actuated by motives as pure, and a sense of duty as imperative, as any which can be supposed to influence the most "grateful servant of the State," that I have frequently, during the epidemic of 1816, and in the course of one round of visits, seen delineated in different cases (undeniably originating in the same pestilential cause, whatever that might be*) every shade of those varieties described by Drs. Chisholm, Pym, and others—these varieties or modifications being obviously and solely the offspring of

* I am warranted by Sir Gilbert himself in using the word *pestilential* to express only "a very high degree of prevalence, together with an extraordinary and calamitous rate of mortality."

diversities in the ages, temperaments, or assimilation of those affected. I can further declare, with equal confidence, that I have, since that time, met with cases, purely sporadic, which in their progress and termination have followed the course of the most malignant forms described as the true or infectious Bulam fever. One most remarkable instance of this kind occurred about two years ago. The subject was a carriage painter, named Higgins, about 30 years of age, and twelve months from England. After fatigue and exposure to the sun, he was attacked with fever, but unfortunately did not apply for assistance till the commencement of the third day. The case, even at my first visit, I pronounced to be lost. The skin was acquiring the dingy discolouration of Chisholm, and an unconquerable irritability of stomach indicated the approach of mortal symptoms. In the progress to dissolution, there supervened black vomit, hiccup, petechiæ, and profuse hæmorrhages from the nose, mouth, and intestines. The pains in the head and legs were exactly as pointed out by Chisholm, (the former being confined to the forehead and orbits, the latter to the calves) and the peculiar dilatation of the pupil, so much insisted on by that author as never accompanying the marsh remittent, was well marked—indeed, it would be difficult to conceive a more complete assemblage of every malignant indication; yet this man died in the quarters of a sergeant of the 5th regiment at the barrack immediately to windward of the town; surrounded by the wife and family of the latter, and visited by European soldiers and other friends. His bedding, &c. remained in use after ordinary cleansing, but we heard of no other case for months.

Whatever may be their discrepancies, however, in other points, the advocates for contagion would seem to be *unanimous* in admitting, that those fevers must be considered as possessed of that property which "prevail in a much more fatal degree than usual, sparing few who are within their influence, and carrying off a large proportion of the whole population."*

Now if these be, indeed, the true and grand characteristics of that "destructive monster," described by Chisholm and others, it will not, I presume, be denied, that the fevers alluded to in this communication were of a similar type; for they were, God knows! general enough among those exposed to their influence, and nearly *one*, on an average, out of *three* who were attacked, fell a victim to the extreme malignancy of the symptoms.† But I really find some difficulty in per-

* Blane's Medical Logic.
† See Returns annexed to Appendix B.

extent and bearings"*—for the stanchest advocate of non-contagion might have had his creed most seriously shaken had he confined his views to the circumstances of those fevers, which I have adduced in evidence in this communication, previously to the several crews being removed from their respective vessels. While they continued to be exposed to the influence of local causes—the general prevalence of the disease—its progressive fatality—the impossibility of arresting it—every thing might have conspired to puzzle or mislead the most attentive observer—but it was the landing those people, and their introduction into an island where no such disease existed at the time, which constituted the truly unexceptionable test of its non-infectious nature—the genuine "experimentum crucis"—and how repeatedly this test has afforded a result the most triumphant for the non-contagionists, has been shown by the documents already referred to. Thus far I have argued, assuming the accuracy of Sir Gilbert's statements on this point to be unquestionable. That it is far from deserving to be so considered, however, the examination instituted by Dr. Bancroft into the circumstances attending the fever on board the Hussar sufficiently proves.† We have, consequently, only doubtful testimony on the one side, while, on the other, the facts already alluded to on the authority of Drs. Crichton and Dyett, as occurring on board the Montagu packet in 1816, and the merchant ship Arethusa, from Montserrat, in 1821, (both of which vessels received on board, with impunity, fatal cases of yellow fever) will, I presume, be deemed evidence as conclusive as could possibly be demanded even by the most sceptical of that class of which our author may be considered the leader.

Sir Gilbert Blane's five "considerations" have now passed under review, and each of them, after the most attentive examination, has been shown, not by *reasoning*, but by *facts*, to be destitute of foundation—so utterly destitute, indeed, that I can hardly believe it possible that any one of your impartial readers, after a careful perusal of the documentary evidence I have adduced, will deny my right to advance the following very opposite conclusions as incontrovertibly established.

1st. That yellow fever, or in other words, fevers bearing in every stage—in their commencement—progress—and termination—the characteristic marks of the most malignant pestilential form, described by Chisholm and others, prevailing in a more fatal degree than usual, sparing few who are within

* Blane's Medical Logic.
† Bancroft on Yellow Fever, p. 769.

their influence, and carrying off a large proportion of the whole population,* "may with absolute impunity be introduced into any island, place, or vessel, which, but for such introduction, would have continued healthy; and that consequently, such fevers cannot possibly be contagious.

2dly. That separation, except from those local causes which constitute the invariable source of yellow fever, can have no influence whatever in arresting the progress of the disease.

3dly. That one attack of yellow fever by no means exempts an individual from all risk of suffering from it a second time; although the general liability to its influence is unquestionably in an inverse ratio to the period of assimilation.

4thly. That the more general prevalence of tropical fevers at one time, with symptoms more intense and mortal than at another, can only be considered an additional proof of their being all of them essentially the same, although they may at different times rage with varied degrees of violence and mortality from causes which it must be admitted have not yet been properly defined.

5thly. That as it has been shown to be impossible to infect a healthy vessel by the introduction of yellow fever from the shore, so must it be equally impracticable to communicate it from one ship to another in the middle of the ocean.

It only now remains for me to take a cursory glance at the treatment of yellow fever, rendered necessary in my opinion by the solemn, but loose and dangerous language, so pathetically addressed by Sir Gilbert to the juniors in the medical service of the navy on the subject of blood-letting and purging.† A reference to the 9th volume of the Medico-Chirurgical Transactions will place your readers in possession of a more detailed account of my own ideas on the best practical measures to be adopted than there can be any necessity for my recording in this place. It will there, I think, appear to their satisfaction, that I am no advocate for "outrageous and indiscriminate practices," but, that both reason and experience have combined to render me fully aware of the mischief which may be done by the "rash and undistinguishing members of our profession"—yet I must at the same time declare it to be my settled opinion, that in the earlier stages of yellow fever, the safety of our patients is much more likely to be compromised by timidity than by decision—call it rashness, if Sir Gilbert so wills it—and that no precept more fraught with

* Blane. † Medico Chir. Review, for March, 1823.

danger can be impressed on the mind of an inexperienced practitioner, than that a "single bleeding," however copious, will suffice in the treatment of the severer forms of the disease. The case he details, I agree with him in pronouncing an instance of bad practice, but of bad practice originating not in the rashness he condemns, but in that very timidity his observations must inevitably inculcate; for had the two first bleedings been more vigorously carried into execution—the orifice large—the quantity drawn limited solely by its decided effects upon the system, and the second had succeeded to the first within three or four hours, or as soon as the vascular excitement had been re-established with a recurrence of headache, &c. I think it more than probable, that the life of this young commander would have been saved: had the severer symptoms however re-appeared, notwithstanding the second bleeding (admitting that his frame was not athletic as stated by Sir Gilbert) the lancet ought then in my opinion to have been thrown aside, and the case altogether confided to mercury, which after such liberal depletion, would have afforded a very favourable prospect of success. But had his frame been robust, and his habit plethoric, I most certainly should not have hesitated to repeat the bleeding, *within the first eight and forty hours*, as often as the violence of the symptoms appeared to call for reduction. To sum up, blood-letting is, as I said on a former occasion, our sheet-anchor in all Tropical fevers, affecting Europeans. But in proportion to their violence, or degree of concentration, must we be prompt and decided in its adoption and repetition, *at the very onset*. The remittent forms may be judiciously combated by venesection, as late as the third, or under particular circumstances, even the fourth day, but the concentrated, continued, or what is universally termed yellow fever in its worst shape, may be found in the rapidity of its progress to afford a period, not exceeding a few hours, which if permitted to pass over through indecision, this Herculean remedy would be afterward rendered inadmissible. Mercury becomes then our only, but, alas! a most uncertain resource, and recent experience in the more aggravated remittents has convinced me, that this medicine, too, can only be depended upon in cases of this kind when no limits are observed in its administration, but such as are indicated by an amelioration of the symptoms.

In concluding, I must be permitted to observe, that in annexing these facts and observations to the pages of your Journal, I have been actuated by no presumptuous desire to court notoriety, by obtruding myself into the field of controversy with a physician, so generally and deservedly respected as Sir Gilbert Blane. I profess myself to have been

influenced simply by a regard to those sacred duties, which every conscientious man assumes when he embarks in the practice of medicine—and, could I have circulated the same information through the medium of some abler pen, I should most willingly have avoided thus presenting myself before the public. My letter to Dr. Fergusson was written without the slightest idea that it would appear under the form of a distinct communication. It was merely intended to convey to a valued friend, a statement of facts to be used by him in support of doctrines which had my fullest assent, and were advocated by himself—and that friend, aware that unlimited confidence in his judgment would preclude my seriously objecting to any plan he thought advisable, had it read before the Medico-Chirurgical Society without consulting me.

A. MUSGRAVE, M.D.

St. John's, Antigua,
20th September, 1823.

APPENDIX A.

In the year 1818, when yellow fever prevailed generally, and with great mortality, at St. Kitts, no impediment or quarantine restrictions, to the intercourse between this and that Island, were resorted to, nor do I believe thought of. One of the army vessels, removing from St. Kitts some military, received on board an officer of the 1st West India regiment, who, to all appearance, was in good health, but soon after the vessel sailed, this officer was taken ill with fever, and was landed here at seven o'clock at night, (forty-eight hours after he was attacked) with every malignant symptom of approaching dissolution; he died the following day. In this army vessel there were many other officers, and two or three more embarked here, for Dominica; no precautionary measures were taken in this hospital against contagion—the white or European orderly men were employed about him generally—hospital-assistant Ewing, who had only been fourteen months in the West Indies, visited with me, yet none of those who were on board the vessel or attended him in hospital had the fever. His effects were sold, and used by those who purchased them without dread of yellow fever.

APPENDIX B.

The three following narratives are all derived from the same valuable source as the preceding—the Official Reports, namely, of my friend Dr. Hartle, recently promoted to the rank of Deputy Inspector, than whom a more zealous, humane, and indefatigable medical officer is not attached to His Majesty's service, and whose long and successful experience within the Tropics, entitles every thing coming from him to the most attentive consideration. The three highly malignant and destructive fevers they embrace, I have included under one head, because, although occurring at different periods and under modified circumstances, they are all mutually and obviously illustrative of the facts and conclusions to be deduced from the origin and progress of each, when separately considered.

FEVER ON BOARD THE DASHER, 1831.

"On the 26th of August last, His Majesty's armed transport Dasher left Carlisle Bay, Barbadoes, bound for Tobago, but, in consequence of severe gales of wind, she was obliged to go to St. Lucia. From thence she proceeded to Tobago, and received on board a company of the 9th regiment, and conveyed them to Grenada, that they might avoid the endemic fever of the former place. This company, while on board, was perfectly healthy. On their landing at Grenada, I have a public document now before me which proves that they arrived equally so—they were immediately placed in quarantine, and remained so for the space of fourteen days, during which period not a man was sick. The Dasher, after landing this company at Grenada, proceeded hither, but a few days before she reached this port, yellow fever made its appearance among her crew, and previous to her arrival, six men had been attacked, two of whom had died. In the evening of the 22d September, she arrived in English Harbour, and on the 23d, the assistant-surgeon, Mr. Maclean, reported two men ill with yellow fever. I directed them to be immediately sent to this hospital. On their arrival, I was not a little surprised to find both in the last stage of the disease, and labouring under all the *most malignant* and distressing symptoms. One died in a few hours. On the following day (the 24th) seven were attacked, through the day, all suddenly and seriously. This, and the nature of the disease, brought forcibly to my mind what the Childers suffered, from the putrid state of her hold. I immediately addressed his Excellency Major-General *Sir B. D'Urban, reporting* the circumstance, and recommending that, without loss of time, the officers, crew, and marines, be ordered out of the ship and encamped on an isthmus of land at the mouth of the harbour, and to leeward of all the bay; where every communication could, with great ease, be suspended; and that black people be employed to take out all her stores, tanks, ballast, &c. &c. and clean the ship generally and thoroughly under my daily inspection. His Excellency immediately acquiesced in my proposal, and accordingly, as soon as the ship could be warped into the harbour, properly moored, and safely arranged, to permit the removal of her ballast, the officers, crew, and marines were landed, which took place on the 26th September. Two cases of fever occurred on that day, two on the 27th, one on the 29th, (which was the assistant-surgeon) and the last on the 4th of October, making in the whole *fifteen* cases, *four* of which died. Black people immediately commenced clearing out the ship; after removing the *stores*, tanks, fuel, ballast, &c. the dirt was scraped together, but this amounted to no great quantity. This did not satisfy my mind, and I insisted on having the limber boards taken up. Some objection was at first made, as to the likelihood of their being broken, but I was determined to leave nothing undone, and they were accordingly removed. Here, to the astonishment of every one, lay the mischief. On taking up these boards, the noxious effluvia surpassed any thing that I had before experienced, and it was with difficulty that the blacks, who were accustomed to this work, could remain. The ship-carpenter, who had been constantly accustomed to work in the dock yard, and on many such occasions, assured me, that he had not before experienced so putrid a smell from any ship's hold. Between the timbers there was a collection of carpenters' shavings, &c. in great quantities. These had so completely choked up the limber holes that the water could not pass to the well of the pumps, and lay stagnant. The vegetable matter was, therefore, in a state of decomposition, and this, acted on by high atmospheric temperature, became neither more nor less than a marsh in the centre of the ship. The fever was, consequently, of similar type, (but more aggravated by locality) with that which we may expect from paludal effluvium. It may be worthy of remark that, on the following evening, I was called to see one of the blacks who had been assisting in cleaning out this putrid matter which lay under the limber boards. I requested Hospital-assistant Hall to accompany me. The man was evidently labouring under a similar type of fever with that of the Dasher's people, and narrowly escaped by my attention. When the ship had been thoroughly cleansed, washed, white-washed, and fumigated, the officers, crew, and marines were allowed to return to her.

"While they were encamped they continued free of disease, but soon after returning, the painting commenced, and Lieutenant Waldridge was obliged to

have the ship and ship in the dock-yard, and the first, or chief mate being in hospital, the crew soon found the way to procure new rum, and I have been credibly informed, that many of them have been seen at night drunk, lying on the water-side unable to move. What was the consequence? Not fever of the ardent type; but common, continued, gastritis, dysentery, cholera, &c. &c. That the fever was generated on board by noxious effluvia received into crowded and badly ventilated births, is, I think, fully proved, for the moment the crew and marines were removed from the sphere of this hidden enemy, the disease ceased. Let it be remembered that the crew removed from the ship on the evening of the 26th *September*, and, by examining the nominal Return, it will show that *the removal, at once, checked its progress*. Nothing like the most distant appearance of contagion could be traced. Those who were brought to hospital were attended by myself and Hospital-assistant Hall, who had newly arrived in this country. One of the servants of the hospital was a European soldier of the 35th regiment, who constantly assisted the fever patients, dressed their blisters, gave injections, and attended to all their other wants, yet none but those residing on board the ship, or exposed to the effluvium from her holds, prior to her expurgation, suffered by the fever."

FEVER ON BOARD H. M. FRIGATE PYRAMUS, 1821, 1822.

"His Majesty's ship Pyramus left this port, as I understand, perfectly healthy, on the 19th October, in company with the flag-ship of Rear-Admiral Fahri, for St. Kitts, where she remained until the 28th October, when she sailed from thence for this Island. A day or two prior to her arrival here, fever of a most alarming type made its appearance among the officers and crew. She came into English Harbour early in the morning of 1st November, and as soon as she was anchored, Captain Newcombe sent a lieutenant to inform me of the state of the ship, and to request medical assistance. I immediately went on board, and was surprised to find that an officer (lieutenant) had died the day before with only a few hours illness—that the purser and six men lay dangerously ill; the surgeon who, from his own account, had been attacked himself, was unable to perform any duty, and was then in a precarious state from extensive, and what appeared to me to be, depletion, without regard to its consequences; the others, therefore, had received no medical assistance beyond that of an ignorant surgery man, or what is called on board a lobbily boy. He had bled them, and given some cathartic medicine, but it did not appear to me that the bleeding had been either to a sufficient extent or from a proper orifice, and unfortunately, the time for its repetition was past, as the disease was in its secondary stage. To this, therefore, I attribute the misfortune of losing the three first attacked, (purser and two of the men) for organic derangement had already taken place. I immediately proposed the removal of all the sick, which Captain Newcombe instantly sanctioned, and as soon as the oppressive heat of the day had passed, they were landed and conveyed to the hospital. The two men who died suffered under all the *characteristic symptoms of yellow fever;* black vomit, hæmorrhage from nose, mouth, and anus. The purser had nausea, but no vomiting; he bled profusely from the nose, and, a little before he died, passed, involuntarily, a large quantity of black fetid blood, per anum. I lost no time in reporting the distressed state of the ship to His Excellency Major-General Sir Benjamin D'Urban, commanding His Majesty's Troops, and, at the same time, recommended, that one of the hospital-assistants doing duty in this garrison, should be ordered to take medical care of the ship. His Excellency was pleased to signify his approbation, and Mr. Freer was ordered on board. On the following morning, (2d November) I again visited the ship, and found that the lieutenant of marines had been attacked with fever in the night. He had been freely bled, and was then under the influence of cathartic medicine; I wished him to go to the hospital, but he solicited to be allowed to proceed in the ship, and fearing that a removal might distract his mind, I did not insist on his going on shore. He had so far recovered as to be convalescent when the ship arrived at Barbadoes. The Pyramus proceeded in the afternoon of the 2d November to Barbadoes. Mr. Freer, who returned to this garrison on the 2d instant, having been relieved by a naval surgeon, reports that many fresh cases

occurred in the passage up, but that he had landed most of them at Barbadoes in a convalescent state; that when he left the ship the fever still prevailed."

The foregoing extract is made from Dr. Hartall's Official Report, dated December, 1831. In his next, for June, 1832, he thus resumes this interesting narrative.

"The dire effects of concentrated miasma were very recently and decidedly proved on board His Majesty's frigate Pyramus, which came into English Harbour in the month of November, 1831, on her way from St. Kitts to Barbadoes, to obtain medical assistance, and land some officers and men labouring under yellow fever. The disease had suddenly appeared, and I could not, at that time, discover any manifest cause for it. Neither officers nor crew had been exposed to solar influence, or any other known predisposing cause. I was therefore fully convinced, in my own mind, that the source was in her holds, and in my report for December, 1831, I suggested the necessity of cleansing them, and expressed my hope that it would be my lot to investigate this most interesting subject of research. On her arrival in Carlisle Bay, Barbadoes, the disease became so general and alarming, that Mr. Tegart, the Inspector of Hospitals, ordered a board of medical officers—'to examine into the state of that ship, and investigate the probable cause of the sickness that prevails on board. The board will also report upon what may appear to them the most likely means of checking the progress of the disease, or removing the cause of it.' In the first part of their report, the Board appear to attribute the cause, in some measure, to the coal-tar with which she was injected, for they particularly observed the offensive effluvium 'arising from that substance mixing in the hold with the bilge water.' In the second paragraph they remark, that the ship lay for thirty-four days, at different times, in English harbour; and, in the third paragraph, considering with respect to the predisposing cause of the disease, at present prevailing in the vessel, the Board are inclined to attribute something to her stay in English Harbour.' If the coal-tar, when mixed with the bilge water, produced so offensive an effluvium, it is clear to me, that it ought to have been considered as inimical to health;* and, with all due deference, I think, the Board would have acted more to the purport of their instructions, had they recommended an immediate expurgation, instead of advising that the ship should be taken to sea, 'and cruise in the vicinities of the islands:' for it does not require much ratiocination to prove, that until the cause is removed, the effect cannot (nor did it in this instance) cease. I would ask if thirty-four days stay in English Harbour, at different periods, caused this malignant disease in the Pyramus, why did the other ships of the squadron escape it; for they all lay a much longer time in the same bay, and the Salisbury, bearing the admiral's flag, remained for three weeks together, yet none of them were sickly? It may be here deserving of notice, that the only ships then on the station, injected with coal-tar, were the Pyramus frigate, Eak sloop of war, and Dasher transport; all of which suffered (the former and latter most severely) with a similar type of disease—*yellow fever in its most malignant form.* Fortunately for the officers and crew of the Eak, soon after her arrival on this station, she struck on a sunken rock, on the Spanish coast, and so materially damaged her keel, that on coming into English Harbour every article was obliged to be taken out of her, to enable the shipwrights to heave her down, and get at the injury. Without considering the consequences, her crew were employed not only in this laborious work, but in that of cleansing her holds, which contained a quantity of stagnant bilge water, and offensive coal-tar; the latter obstructing the passage of the former to the pump-wells;—during the process of expurgation, the yellow fever appeared among the people, and but few escaped an attack. As the Board of Medical Officers at Barbadoes, had suggested the propriety of Captain Newcombe's taking the Pyramus to sea, he left Carlisle Bay, and cruised as far as 28 North; but, finding this avail nothing, and that the disease became more

---

* *Note by Dr. Musgrave.*—It appears to me, that the coal-tar contributed to the production of this fever only in so far as it obstructed the free current of the water to the pumps. But this, I should imagine, would be deemed amply sufficient to preclude its being used in future.

stanning, he hastened to English Harbour, and arrived here on the 3d of January, 1822. I anxiously embraced the opportunity to ascertain if my prediction was correct, and immediately visited the ship. On finding that the sickness continued, with increased violence, I requested permission to examine the vessel, which I did in the most minute manner; and it is but truth when I say, that no ship could possibly appear cleaner or in better order; and had I not been convinced that the cause was in her holds, I should have been at a loss, from the good order and apparent comfort of the people, to account for the cause of so malignant a fever. I instantly removed all the sick to the hospital, and wrote to Captain Newcombe, recommending the removal, as soon as possible, of all the officers and crew from the ship, and that black people should be employed to do the laborious work of removing her stores, shot, tanks, ballast, &c. &c. and cleanse (under my frequent inspection) the holds, and every part of the vessel, thoroughly; Captain Newcombe acquiesced in my proposal, but as it required some days to dismantle, and place the frigate in a proper state of safety, they did not land until the 15th. This unavoidable delay exposed the people to the influence of the local causes much longer than I could have wished. His Excellency Major General Sir Benjamin D'Urban, with his usual benevolence and zeal for every branch of His Majesty's service, offered, as the Fort Berkley isthmus was not extensive enough for their encampment, to evacuate Middle Ground barracks for their accommodation; but Captain Newcombe foreseeing the impossibility of keeping his people together on this post, preferred to quarter them in the Eastern dock-yard, from whence they could not go, but by water. The seamen and marines were therefore quartered in the upper part of the Capstern House, while the lower part served as a store for such articles of the ship as could not be exposed to the weather. Unfortunately the ship lay alongside of this wharf. Anxious to ascertain, by ocular demonstration, the cause of this endemic, I daily visited the ship, and was present at the opening of the holds—the effluvia from which surpassed any thing I had ever before experienced. Zeal on the part of the first and second lieutenants, master, and surgeon, incited them to accompany me, and they were accordingly with me when the limber boards were taken up. It is not in my power to describe the stench which issued forth on their being raised. The boatswain, curious to see what we were doing, did not come down, but lay on the lower deck to view us. This confined gas rushed up the hatchway, where his head was hanging over, so offensively oppressive, that he fainted. In the night he was attacked by the fever, and narrowly escaped. On the following day the first lieutenant was attacked. In the evening the second lieutenant was taken ill, and, in a few hours after, the master and surgeon. The second lieutenant, I am sorry to say, fell a victim to the disease, on the fourth day. On the third day I was myself very much indisposed, but fortunately a spontaneous diarrhœa removed all my febrile sensations. Here we see every individual present at the opening of the holds and limber boards attacked by the prevailing disease; and if we had no other proof of these morbific miasmata being the cause, the instances adduced would, in my opinion, be sufficient to substantiate that they were so, and save us the trouble of searching for any other, or ascribing the most trifling agency to that bugbear contagion. From the 15th day, on which the officers and ship's company were landed, to the 30th January, only eighteen cases occurred; and I was vain enough to think I had succeeded in checking its progress, but, on the 31st of January, six fresh cases were received into hospital, and the disease again appeared with increased violence and malignancy. This sudden reappearance and virulence of the disease induced me to believe that the people had some secret communication with the ship, which was then undergoing a general expurgation. This, with a little trouble and exertion, I ascertained to be the case, and instantly recommended to Captain Newcombe to occupy the upper part of the Western Capstern House for the convalescents, and encamp the remainder of his people on the Fort Berkley isthmus. Accordingly, on the 6th February, (as soon as the encampment could be formed) they removed to the camp; this change of quarter and situation had the desired effect, as will be seen by my subjoined extract. Although I was fully persuaded, in my own mind, that the cause of the disease lay in the ship's bottom, I had not an idea, that such extensive bogs could have been found under the limber boards and between the

timbers. (It would appear scarcely credible, that four large canal butts of filth should be taken out of this frigate, which had only been six months from England, and, I believe, not long out of dock. This, however, is easily explained. The shipwrights had never taken out their chips and shavings—the coal-tar, from heat of climate, had run into all the timber-holes, and so cemented these chips and shavings, that no passage remained for the water to go to the well of the pumps, it, therefore, lay stagnant under a heat of one hundred degrees of Fahrenheit's thermometer. As soon as the timber-boards were raised, I requested that the pumps should be worked. Both chain and hand-pumps were used, and when they could no longer draw, the water and mud-like matter remained nine inches deep, just the depth of the timbers in the ship's bottom. Each of the holds presented similar matter, but the after-magazine, which lay immediately under the gun-room, surpassed all; it appeared as if this confined place had been intentionally stuffed with chips and shavings, all of which lay in stagnant bilge water, mixed with coal-tar. The stench from it was so oppressive that, with difficulty the blacks could be kept at work to remove it, and they were frequently obliged to run on the quarter deck for pure air. This readily accounts for the fact that every officer's servant, and servant of the gun-room mess, suffered with the fever, and most of them died. During the process of expurgation, three of the blacks were attacked by fever, evidently characteristic of that which prevailed among the ship's company. One, particularly, who was employed in cleaning out the dirt, coal-tar, and stagnant water, which lay in the after magazine, suffered most severely. The irritability of stomach exceeded any thing of the kind I had before witnessed in one of his colour, and it was by the greatest care and attention that he recovered."

Dr. Hartle proceeds to state that, after the ship had undergone a thorough expurgation, the officers, seamen, and marines re-embarked on the 11th of March, in health and spirits, and had continued so up to the date of his Report. I shall, therefore, pass on to the next narrative.

FEVER ON BOARD A TRANSPORT, FEBRUARY, 1822.

"In the month of February, some recruits for the European regiments serving in this command, arrived at Barbadoes, and in March following, the ship arrived here with those for the 35th regiment, and 9th foot. On the passage from Barbadoes, yellow fever made its appearance among the troops, and, on the ship's coming to anchor in English Harbour, seven cases, in the second stage of the disease (who died with black vomit, hæmorrhages, and petechiæ,) were sent on shore to this hospital. Indisposition prevented my visiting the ship on that day, but Mr. Munro, surgeon of the 35th regiment, did; I desired that he would send every individual he found complaining to hospital—accordingly two were sent on shore. Prior to Mr. Munro's inspection, Dr. Barclay, who came from Europe in medical charge of the recruits, wrote to me, reporting that he had an officer (Major Loftus, of the 9th regiment) dangerously ill on board. I desired that he should be immediately landed and brought to hospital. On his arrival, I was surprised to find that a very short period would terminate his life. On the morning of the 11th I visited the ship myself, I found her very clean, and in good order; two more men had been attacked, whom I brought to hospital, and instantly wrote to His Excellency Major Gen. Sir B. D'Urban, commanding His Majesty's troops, recommending that, as the transport was to go to Saint Kitts prior to proceeding to Grenada, the detachment of the 9th foot should be landed and encamped on the isthmus of Fort Berkley, until the ship returned, as the disease appeared then to be confined to the 9th only; but, in the evening, six fresh cases were landed, belonging to the 35th regiment and Royal Artillery. This induced me again to address His Excellency, recommending that the detachment generally should be landed and encamped, which His Excellency was pleased to sanction, and in the morning of the 12th they disembarked, and took up the encampment. The ship underwent a partial cleansing, and proceeded to Saint Kitts; after landing the stores and baggage, she returned to English Harbour on the 19th of March, and had a general purification. The detachment for Grenada re-embarked on the 23d, and sailed immediately. It arrived in good health, and, I understand, has continued so. The staff surgeon, by my advice, placed them, on their arrival, under observation for some time. On the 24th of

March, the detachment belonging to the 35th regiment marched from the encampment to the ridge, and joined the head-quarters of their regiment. Not a case of ardent fever has occurred among them.

It is a pleasing reflection, and a source of great gratification to me, that notwithstanding *one hundred and forty-seven cases of yellow fever, as distressing and malignant as any I have before witnessed*, have been by these vessels imported into this island since September, 1821; we have not heard of a single instance of any individual, but those directly exposed to the local causes, having been attacked. At the time the Dasher's sick were received into this asylum, (September, 1821,) European orderlies attended them, and Mr. Thomas Hall, my zealous and indefatigable assistant, had only been a few months from Europe. With all these patients we never apprehended danger—we took no precautionary measures—it was our duty to exert every effort for the saving of lives, valuable to the service—we were day and night in the wards—we not only administered the medicines, but we assisted the nurses—we gave injections; we applied and dressed blisters; we assisted in putting the patients into, and out of warm baths; we sat on the bed-sides of the sick, to cheer up their spirits; we have been frequently vomited on, by those labouring under black vomit; we examined every case that died:—yet, all this exposure never produced the smallest indisposition beyond that resulting from fatigue and want of sleep. In the foregoing pages I have shown strong and sufficient proof that the yellow fever, which prevailed in His Majesty's frigate Pyramus, was generated in her holds—that the boggy matter there accumulated emitted effluvia sufficiently deleterious and concentrated to affect the boatswain, who suffered instantly and severely by being casually exposed to it, when disengaged from the limber holes—that each individual present at the opening of those holds and limber boards were attacked, and that the blacks who were employed to cleanse the ship (people not at all subject to fever) were assailed by the same disease. I have also substantiated the advantages resulting from a removal; and separation of the crew from the local causes—for my abstract will show that until this change took place the disease could not be checked. If, therefore, this disease had been contagious, a removal, particularly to so short a distance, (two or three hundred yards,) could not have arrested its progress. Besides this, the gentlemen of the island visited the officers—the officers returned their visits. The people of the country formed a vegetable and fruit market in the camp. The hospital bedding was not destroyed—it was, as is done in every other instance of sickness, washed and aired. It has been in constant use ever since by both the navy and army. Yet this fever has not appeared in any individual, but those directly exposed to the original cause. Since the expurgation, the ship has continued remarkably healthy. On the 14th November a sporadic case of ardent fever occurred on board—it proved *fatal*, with *every distressing symptom characteristic of yellow fever*; yet the same individual had suffered most severely in the month of March, when the endemic prevailed so generally in the frigate."

ABSTRACT of the daily Admissions of Yellow Fever Cases, into the Army General Detachment Hospital from His Majesty's Ship PYRAMUS, in English Harbour, ANTIGUA.

1822.	3d January.	5th January.	6th January.	8th January.	10th January.	11th January.	13th January.	14th January.	16th January.	17th January.	18th January.	20th January.	28th January.	29th January.	30th January.	31st January.	1st February.	2d February.	3d February.	4th February.	5th February.	6th February.	7th February.	8th February.	12th February.	15th February.	16th February.	23d February.	24th February.	2d March.	3d March.	8th March.	10th March.	11th March.	17th March.	14th November.	Total of Men.	Women. 21st January.	Women. 5th February.	Women. 6th March.	General Total of Men and Women.
Number admitted each day.	13	2	4	3	2	4	1	4	3	1	4	2	2	2	3	3	6	5	3	10	5	2	1	4	2	1	1	1	1	2	1	1	1	1	1	1	102	1	1	1	105

GENERAL ABSTRACT of Sick, from His Majesty's Ship PYRAMUS, treated in Gen'l Detach't Hospital at ANTIGUA.

	Officers, Seamen, and Marines.																			Women.			
	Febris Continua Com.	Febris Continua Iterades.	Phlegmon et Abscessus.	Enteritis.	Pneumonia.	*Hepatitis* Acut.	Podagra.	Rheumatism Acut.	Phthisis Pulmon.	Catarrhus Acut.	Dysenteria Acut.	Diarrhœa.	Melancholia.	Obstipatio.	Contusio.	General Debility.	Inebriari.	Total Men.	Febris Cont. Com.	Febris Cont. Icterades.	Total Women.	General Total.
Admitted between the 3d January and 20th December, 1822	11	102	1	4	1	2	1	2	2	4	1	14	1	1	1	4	1	153	1	3	4	157
Discharged between the 3d January and 20th December, 1822	11	72	1	4	1	2	1	2	1	4	1	14	1	1		4	1	121	1	1	2	123
Died between the 3d January and 20th December, 1822		30							1									31		2	2	33
Remaining on the 20th December, 1822															1			1				1

ABSTRACT of Military Sick Recruits, daily admitted into General Detachment Hospital from the Transport in English Harbour, and the Encampment on Fort Berkley Isthmus, ANTIGUA.

1822.	From Transport.			From Encampment.					
	9th March.	10th March.	11th March.	12th March.	13th March.	16th March.	20th March.	23d March.	Total number.
Number admitted each day.....	7	3	8	4	2	1	1	1	27

GENERAL ABSTRACT of Sick Recruits, from the Transport in English Harbour, and the Encampment on Fort Berkley Isthmus, ANTIGUA.

	Officers and Soldiers.					
	Feb. Cont. Com.	Icterades.	Phlegmon et Abscess.	Rheumatis Acut.	Chron.	Total.
Admitted between the 9th and 23d March, 1822.....	2	27	1	1	1	32
Discharged.....	2	15	1	1	1	20
Died		12				12
Remaining.....						

Signed—ROB. HARTLE,
Surgeon to the Forces,
Resident Medical Officer.

APPENDIX C.

Antigua, 18th September, 1823.

My dear Doctor,

The circumstances respecting the sickness on board the Montagu Packet were these;—The packet, on her passage home, in the latter end of December, 1816, sprung so bad a leak that it was deemed proper to put back to St. Thomas's to have it stopped. During the process of heaving down, at a wharf on the other side of the harbour, opposite to the town, the packet sunk; the wharf was attached to a flat piece of land, backed by a small hill covered by brushwood, and having some swampy ground at its base between it and the flat ground.

The passengers, ten in number, lodged in the town of St. Thomas until the packet was again ready for sea, which was in the space of three weeks. The crew lived in tents alongside the wharf, and underwent great fatigue in raising, heaving down, and refitting the vessel. At this period the ardent fever (commonly called yellow fever) prevailed to a considerable extent in the town of St. Thomas, but did not affect any of the passengers residing in town, while the officers and crew engaged on the opposite shore suffered by it; of the crew three died.

When the vessel was refitted, and even before she was thoroughly dried, the passengers and sick, with one of the latter who had just died, were embarked. The packet immediately put to sea; had the fever been of a contagious nature there could scarcely have been a better opportunity for its exerting that influence; yet no case of fever took place during the passage home.

I remain, my dear Doctor,
Yours very truly,
ROBERT CRICHTON, M.D.

APPENDIX D.

Account of the Montserrat Epidemic of 1821. By Richard H. Dyett, M.D.

Dear Musgrave, *Montserrat, September 1st,* 1823.

In furnishing you with a detailed account of our epidemic of 1821, I shall treat the different points connected with it agreeably to the order in which they are classed in your letter; subjoining such observations as the view which I entertain of the nature and importance of the subject will unavoidably elicit.

The 1st point embraces the origin of the epidemic, with the proofs of its non-importation.

The 2d, its symptoms and progress.

The 3d, its treatment.

The 4th, the classes of persons affected with the different degrees of concentration observed in each.

The epidemic was unquestionably not imported.

For several months previously to its appearance, the island was remarkably healthy. From the commencement of the year, until the melancholy period of its eruption, no death had been occasioned by fever, and after instituting the strictest inquiry, I was convinced, that no case of fever had been imported. Those who are acquainted with this colony—its inconsiderable size—its scanty population—the nature of my connexions—and the extent of my practice in it, will readily comprehend how easily and satisfactorily I could ascertain this fact; and how difficult, how nearly amounting to impossibility, it would be, to conceal from me the importation of a severe or alarming malady.

To the epidemic of 1821, a local origin must therefore be assigned. Unhappily local causes, sufficient to account for its appearances, existed at the moment. The weather was, and had been for many preceding weeks, intensely warm. The thermometer ranged in the shade from 89 to 96. No heavy rains had fallen, but the surface of the earth was daily moistened by light showers. In every corner of the town, but more particularly in the immediate vicinity of the house in which the epidemic first manifested its presence, heaps of animal and vegetable filth commingled, were, to the disgrace of the police, suffered to accumulate. It is to the operation of these combined causes—to the production of a highly vitiated state of the atmosphere, arising from the action of extreme heat, upon mixed animal and vegetable matters, in a state of putrescency, and perhaps also to the extrication of miasmata, from the drying surface of the earth, that I attribute the generation of our late formidable and concentrated endemic.

The first case of fever occurred on the 5th May. The subject of it was a young European female, who had resided many years in the colony. It was ushered in by considerable heat and dryness of skin—loaded tongue—full rapid pulse—extreme restlessness—intense thirst—dull suffused watery eye—headach—uneasiness, with sense of stricture about the præcordia—and unconquerable irritability of stomach. On the third day the heat of skin disappeared—the pulse sunk to 80—the eyes, and subsequently the whole surface of the body became yellow. The disease terminated fatally on the 5th with black vomit—black stools—dry furred tongue—subsultus tendinum—hiccough—vibices, and intestinal hæmorrhage. A sister of this young lady was immediately afterward attacked by the disease, which exhibited nearly the same symptoms, ran the same course, and produced the same fatal result. The rest of the white family, consisting of eleven persons, most of whom were Europeans, fled in alarm to the country.

The epidemic which had thus commenced its ravages, now appeared in another, and distant quarter of the town, over which it continued for several months to extend, reiterating its attacks, not rapidly, but gradually and generally, and in many instances destructively. During its course, 201 cases came under my care; among these there were fourteen deaths.

The violence of the epidemic had at one period considerably abated, and during the temporary calm, the family originally attacked, who had resided for upward of six weeks at a distance in the country, ventured to return to the habitation, from which they had been so alarmingly expelled. Whilst absent from it, they had enjoyed complete and universal immunity. In less than a week after they had retaken possession of their former dwelling, the disease renewed its visit, attacked four of their number, nearly at the same moment, and, in the person of the eldest sister, consigned another, and in this instance particularly, deeply-lamented victim to an untimely grave. The others were more fortunate, they survived the attack; and the family, having again removed from the source of contagion, were exempt from further molestation, during the prevalence of the epidemic.

It could hardly be expected, that the attacks of a disease so general in its diffusion, and so persevering in its visitation, would, in a West Indian town, so ill-regulated as ours then was, be long limited to its range, or confined within its

precincts. The intercourse with the country was as usual unrestricted. It never suffered even momentary interruption. The communication with the neighbouring islands was not interdicted; nor was any restraint laid upon the crews of the European vessels in the harbour. Under these circumstances, it would have been almost miraculous, had the disease not spread into the country, or been introduced on board the ships, yet in the latter, only two cases of fever occurred, both of which were slight; and of the inhabitants of the country, none, but those who had incautiously exposed themselves to the nocturnal influence of the contagion, became its subjects. These cases were, with very few exceptions, confined to the military of the garrison stationed at a short distance from the town; and among them, the disease raged with extreme violence, and uncommon fatality.*

In the severe and fatal cases of this fever, the symptoms were, with some occasional difference, and modification, very generally the same, with those which I have described, as ushering in, and accompanying, the first case of the epidemic. In one only, could the irritability of stomach be conquered before death.

---

* *Note by Dr. Musgrave.*—Its progress among the military exemplified in the strongest manner how completely local was the source of this disease, and how entirely incommunicable it was by personal contagion. I find on examining the reports of Dr. Hartle, and Hospital Assistant Parry (the former of whom went to Montserrat, for the purpose of *investigating* the *nature of the epidemic*, and the latter was *residing* there *in* charge of the detachment) that from the 5th of May, to the 26th June, only two cases occurred among the troops, which were stationed at some distance from Plymouth on a healthy eminence; and these two there was every reason to suspect, from their intemperate characters, had eluded the vigilance of their officers, and visited the town during the night. Unfortunately, however, Assistant Commissary General France, having in opposition to Mr. Parry's advice removed the public stores with his family from this healthy situation to the town, while the fever was raging there, first lost his daughter, and afterward himself fell a victim to it on the 23d of June; "the yellowness (says Mr. Parry) appeared as early as the 2d day; black matters were vomited on the 3d, and black stools were passed. On the 4th the countenance became livid and bloated; there was lividness of the gums with hæmorrhage from the mouth and bowels; the disease terminated on the 5th, with marks of extreme putrescency."

Mr. France's fate proved a harbinger of evil to the detachment. On the 19th, *in* consequence of his illness, the officer in command felt it his duty to provide for the safety of the stores, &c. by ordering a corporal's guard to be placed over them, till they could be again conveyed to their former situation. Between the 19th and 24th of June, sixteen men were employed on this duty, each of whom passed a night in town. The consequence might with certainty have been predicted. From the 26th June, to the 4th July, a period of nine days, ten cases presented themselves under the most concentrated form, of which a lamentable proportion proved fatal; the scene being closed in every instance with the same marks of malignancy already enumerated as accompanying the dissolution of Mr. France. On the 24th of June, the guard was discontinued, and effectual measures were taken to prevent further intercourse with the town, especially during the night. Had personal contagion, however, contributed in the most trifling degree to its propagation, what could precautionary measures against intercourse with any place have availed, when the disease was *already among the men*, and the *communication between the infected and the sound continued unrestricted*? Yet the fact is indisputable, that in ten days after these measures were enforced, the progress of this dreadful fever entirely ceased, as the last case went into hospital on the 4th of July.

Dr. Hartle closes his report with these words, "nothing like the most distant shade of contagion could be traced in either the civilian or military. The steward of the hospital is a European, and was in constant attendance on the sick. Mr. Parry, exclusive of his kind and unremitted attention, examined each case after death. The officers paid their customary visits to the hospital, yet the disease was not communicated to any."

Mr. Parry also thus expresses his sentiments. "No precautionary measures were adopted to interdict the general intercourse; no one apprehended, or even believed in the existence of contagion. In short, no circumstance occurred either among the inhabitants or troops that could afford the slightest ground for believing in the existence of such properties."

Some died delirious—others comatose. Some, in the perfect possession of their senses, sunk quietly without a struggle or convulsion; whilst in one or two cases the last scene was closed with strong convulsions. The appearances of herpes labialis was invariably followed by convalescence; but every case in which an eruption resembling rupia simplex took place about the nose and mouth, terminated unfavourably. Most of the patients died on the fifth day. Some on the 7th, two on the 3d, and one on the 30th. This last was a singular case, the subject of it was a young Mongiel girl. The epidemic attacked her in all its malignity. The disease was characterized by extreme irritability of stomach—violent headach—constant delirium, with the "sputatio indecora in adstantes"—bloated countenance—low quick pulse—great restlessness—occasional sighing—black furred tongue—horridly offensive breath—great debility, with tendency to syncope, on the slightest muscular exertion—hiccough—black stools—black vomit—hæmorrhagy from the nose, mouth, and anus. The worst of these symptoms were present by the 9th day, yet she struggled through them all. On the 11th, her stomach became retentive, and she was evidently convalescent on the 14th; unfortunately, however, she was attacked by quotidian intermittent on the 20th, which, notwithstanding the liberal administration of bark, wine, and cordials, finally put a period to her existence—she died anasarcous. In the treatment of the epidemic, I relied principally upon blood-letting, calomel, and the cold bath. From the employment of the lancet, I was not deterred by considerations of age, sex, complexion, climate, or country. It was practised with the native, as well as the European; the Mulatto, as well as the white; the female, as well as the male; the child, as well as the adult. The objections to its use I considered unfounded. I regarded them as more theoretical than practical, and I was not deceived in my estimate of its general utility. It never appeared to do mischief; and whenever blood was drawn early and freely in the disease, the relief obtained by it, though sometimes only temporary, was always immediate, and manifest.

In the practice of this remedy, I was guided, and regulated by the severity of the symptoms, the suddenness of the attack, and the importance of the organ which it menaced; and I preferred bleeding the patient in an erect posture "ad deliquium." When thus practised, I have seen it suddenly arrest a violent paroxysm of fever, remove headach, and irritability of stomach, as if by enchantment, occasion immediate, general, equable, and continued perspiration, and by allowing an opportunity for the rapid and liberal administration of bark, restore the patient to health without the recurrence of fever, and without the production of that debility, which some medical writers have more fancifully, than truly, described, as consequent upon its employment in tropical climates.

After the first six and thirty hours, however, the lancet was entirely laid aside, and the cure confided to other remedies. Among these, the cold affusion was one, from which the patient experienced the greatest benefit. I recurred to it in almost every case at the commencement of the disease, repeating it during the first 48 hours, as frequently as circumstances, or the situation of the patient would permit. When the affusion appeared to have been fruitlessly, or fatiguingly practised, a large and commodious tub, filled with cold water, was placed by the bedside of the patient; and directions were given to immerse him in it for five minutes, as often as the heat and dryness of skin returned. As auxiliary to this practice, sponging with cold water and vinegar was recommended; only such clothing as decency required was allowed, and the bed was placed in the immediate neighbourhood of a window, which remained open both by day and night.

In conjunction with cold thus remedially directed, calomel in every severe case, and in every stage of the disease except the last, was largely exhibited. In some of those whose terminations were fortunate, from 300 to 500 grains were exhibited; and in no case did its conjunction with the cold treatment, appear either during the illness, or convalescence of the patient, to have been injurious. From 5 to 20 grains, according to the age of the patient, or the severity of the attack, were given in pill or powder, combined with pulvis aromaticus, or the aromatic electuary, every two, three, or four hours, until the bowels were freely evacuated, and the system affected; or until perseverance in the

remedy was evidently unavailing. This practice was eminently successful, although cases did occur where even salivation, though early induced, could not avert the fatal termination of the malady.

In the slighter cases of fever, where irritability of stomach was either not present, or not distressing, other purgative medicines, such as jalap, infusion of senna, or cathartic extract, were beneficially employed; a solution of the disease being readily procured by their agency, in co-operation with the cold bath.

When the disease proceeded to its last dreadful stage, numerous and multifarious were the remedies to which I had recourse. A variety of medicines of the tonic, stimulant, and antiseptic classes was tried, and, I regret to say, but too frequently tried in vain. In the contest with the grim tyrant, Nature occasionally achieved an unexpected victory, but art had, I am willing to acknowledge, no triumphs to record. I can mention no remedy which seemed to possess the slightest control over the disease, after the occurrence of black vomit. In two desperate cases, indeed, when yellowness of the skin had early appeared, and the supervention of the horrid symptom above mentioned was with reason apprehended, the exhibition of a large dose of calcined magnesia in mint tea, with the addition of a drachm of the spiritus laven. duc. compositus (which remained upon the stomach, and produced severe bilious diarrhœa) conduceive to the recovery of the patient.

All classes in the community, both male and female, were invaded by the epidemic, but with different degrees of severity, and varieties of concentration. Of the 201 cases which I *attended*, 42 were whites—110 *people of colour*—49 blacks. Among these latter few of the cases were severe, and all of them ended favourably. Some of the most violent, and best marked cases of yellow fever, occurred among the people of colour; four of whom became its victims, and died with black vomit, and other malignant symptoms. Of the 42 whites who were attacked, four were Europeans lately arrived, and all perished. Twelve were Europeans several years resident in the island; of these three died. Twenty-six were natives, of whom 23 recovered. Of the aggregate of those who died, six were males, six females, and two were children under four years of age.

In the greater number of cases, the type of fever was decidedly remittent; but the symptoms were as malignant, and the terminations as fatal in these, as in the cases of continued fever. In one instance the disease made its appearance under the form of regular intermittent. It commenced with rigours, succeeded by heat, and the paroxysm terminated in eight hours by profuse perspiration. On the following day the intermittent paroxysm returned with a similar solution. On the third day the patient complained of extreme debility, and her eyes and skin became yellow. She died on the fifth day with black vomit and hæmorrhagy from the nose and mouth. In the case of one of my own children, a girl about six years of age, the disease commenced with excruciating headach, flushed countenance, distressing restlessness, incessant retching and vomiting. The frontal branch of the temporal artery was immediately opened, and six ounces of blood taken from it. The headach, flushed countenance, and restlessness, soon disappeared. The stomach became retentive, and although the deepest jaundice I ever saw supervened on the seventh day, the disease, under the type of infantile remittent, ran its course safely in fourteen days.

No infectious property was attached to this epidemic. It spread solely by atmospheric ~~contagion~~. During its prevalence, so numerous, positive, and unequivocal were the proofs afforded of this truth, that into the minds even of the most timid no dread of personal infection ever intruded. The most anxious and solicitous attention was therefore universally and beneficially bestowed upon those who were unfortunately subjected to its influence. I have to record, and record with pleasure, that none of the persons attacked were attendants upon the sick. Those whose duty or inclination led them to bestow their care and attention upon the sufferers, uniformly escaped. Many of these attendants were persons highly predisposed to febrile disease. To enumerate all the cases of this kind would be tedious and unnecessary. "Ab paucis disce omnes."

At the commencement of the epidemic, a fine European boy, who had

resided but every few months in the colony, was attacked by the disease in all its violence and malignity; and immediately removed into the country. His sister, who had also but lately arrived, was naturally desirous to attend her brother. I was asked whether she might do it with safety, and my reply was unhesitatingly given in the affirmative. During the four days of his illness, she attended him with the most unremitting and affectionate solicitude. His cheek, often rested upon hers, and his head was often pillowed upon her bosom. He expired in her arms the fifth day. Another European lady shared in the sister's devoted attention to this boy, yet the disease was not communicated to either.

In August, 1821, a European lad of the name of Farrile went on board the Arethusa, Captain Norie, on his passage to England. The day after the sailing of the vessel he sickened, became yellow on the third, and died with black vomit on the seventh day. No other individual on board was attacked.

Towards the decline of the epidemic, several ladies and gentlemen, whilst riding out on a party of pleasure, were surprised by a shower of rain. Some of the party had lately arrived from Europe. Two of the ladies, both natives of the island, and long resident in it, refused for some hours to change their clothes. They, and only they, were in a few days after attacked with fever, and both died. One of these ladies I visited on the third day of her illness, and attended until her dissolution; and I think I never saw a better or stronger marked case of malignant yellow fever. Yet, although the family, of which both the ladies formed part, was a numerous one, the disease was not communicated to any of the other members.*

In addition to the proofs afforded by the epidemic of 1821, that the concentrated endemic of this country is not infectious, I shall briefly advert, in confirmation of the fact, to the evidence which the ten following cases supply. In July, 1811, John Bankes, a young stout black man, was, after several hours of continued exposure to a very hot sun, seized with malignant fever, and died on the fourteenth day with black vomit, black stools, and intestinal hæmorrhage. This man, who was confined in a small, ill-ventilated apartment, was so numerously attended, that I was repeatedly obliged to order the greater number of his nurses out of the room. None of his attendants suffered, nor was there, during the course of the year, another case of the concentrated endemic. In October, 1812, I was called to visit a sailor labouring under yellow fever, by which he had been attacked two days before, on his passage to this island from St. Eustatius. This man was perfectly yellow when I first saw him. His skin was soft and cool. His pulse between 70 and 80: but he could retain upon his stomach neither food nor medicine; and died with the most malignant symptoms, on the fifth day after his arrival. The disease died with him.

Will my reasoning also be deemed shallow and perverted? Shall I be accused of originating baneful impressions from the symptoms which I have described? From the circumstances which I have related, and the facts which I have detailed, I do not hesitate to deduce the following inferences:—

1st. That the epidemic of 1821, in this island, was unquestionably not an imported disease.

2d. That it derived its origin from local contagion, and assumed the form of decided yellow fever.

---

* In examining closely the gums of one of my patients, in the last stage of fever, to see whether they had been affected by the calomel, she sighed heavily. Her breath was horribly offensive, and the air penetrated into my nostrils. I do not remember ever having received a severer nervous shock. So great also was the irritation occasioned in the throat and fauces, that it was upwards of two hours and a half before I ceased coughing and spitting.

3d. That there exists no difference whatever in kind, but merely a difference in degree, between yellow fever and the common remittent of the climate.

4th. That this remittent, bilious remittent, concentrated endemic, yellow, American, Cadiz, Gibraltar, Grenada, or Bulam fever, "aut quocunque alio nomine gaudet," is not infectious—not personally communicable, but propagated by atmospheric contagion *solely*.

R. W. DYETT, M.D.

APPENDIX E.

Extract from a Communication addressed by His Excellency Sir F. P. Robinson, the Governor, to the Honourable the Speaker of the Assembly of the Island of Tobago, dated January 6th, 1821.

SIR,

The following subjects I consider it my duty to submit, through you, to the House of General Assembly, in the confident hope that they will be considered in the light they merit, and that I shall be enabled, through the wisdom of the Legislature, to effect the desirable purpose of relieving the colony, as far as human means can do, from the dreadful scourge with which it has been afflicted for these last two years. *Bacolet Swamp has long been considered as the great source of sickness both in the town and garrison.* If I had entertained any doubts as to the certainty of it, they would have been removed by the survey and experiments lately made by Captain Smith, of the Royal Engineers, by *which the cause of the fever has been placed in such a decided point of view*, that any further delay in endeavouring to effect its removal, would be altogether unpardonable.

"What is called poor land, lying between the cultivated ground of Bacolet and Friends Field Estate, and the King's Ground, requires to be kept constantly clear of brush and long grass; because the noxious vapour from the swamp lodges in those places, in the first instance, and by the subsequent operation of the heat of the sun, it *floats through the air, and occasions a mortality that appals the stoutest hearts.*"

(Signed) F. P. ROBINSON, *Governor.*

Extracts from a Letter addressed by Dr. James Anderson, of Trinidad, to Lieutenant-Colonel Young, commanding the Garrison there, dated November 9th, 1820.

SIR,

As I understand, by late accounts from Tobago, that great sickness and mortality have prevailed in that island for many months past, and that they still continue their ravages in the form of fever, attended with the most fatal consequences; I beg leave to state to you, as commanding His Majesty's garrison in this island, and request the favour of you to communicate it, for the information of His Excellency Sir Frederick Robinson, Commander in Chief on the Station, what I conceive may be of great service in putting a stop to, or preventing, in future, this dreadful scourge to our troops stationed on Fort King George.

In the year 1796, when surgeon of the 4th battalion, 60th regiment, I was for some time stationed in that island, and had an opportunity of observing the fever prevailing in Fort King George, which proved fatal to the Major of the Regiment, and many men; and several of the officers had most violent attacks, all of the same species of fever, but recovered. I had no doubt, in my own mind, as to the cause of the disease, and in ascribing it to the marshy grounds situated to the windward of Fort King George, and when I next year quitted the regiment on account of ill health, and was placed on half pay, I published at Edinburgh some Observations on Yellow Fever of the West Indies; in which I had occasion to take notice of the particular situation of the fort in Tobago. I shall beg leave to give you an extract from that pamphlet, of what relates to our present subject. "Fort King George, in which we were stationed, is situated on a high hill, commanding the town and harbour of Scarborough, in a bay to leeward of it. To windward of the fort, there are considerable tracts of low swampy ground, and as we know from many facts that marsh miasmata can be carried to a very considerable distance, and even to remarkably high situations, we can easily suppose the marsh miasmata to be translated by the constant trade wind along the gradual ascent from those swamps to Fort King George, and there occasion the frequency of this fever on that situation. This is further confirmed by that part of the town which lies at the foot of the hill immediately under the fort, being much more healthy than the fort itself, although the air is much hotter in the town, and it is in a great measure deprived of the refreshing breezes which keep the air at the fort moderately cool —which circumstance I would thus account for, that the miasmata were carried over by the current of wind considerably above and beyond the town, and of course could not affect it, although great numbers were attacked with this fever, yet I never could perceive any marks of the disease being propagated by contagion, and I could only impute its prevalence to the men being exposed to the action of the marsh miasmata."

(Signed) JAMES ANDERSON,
Surgeon H.P. 60th Foot.

Extract from a Letter, addressed by Captain W. D. Smith, commanding Royal Engineers, to His Excellency Sir F. P. Robinson, dated Tobago, 12th January, 1821.

Sir,

In compliance with the commands of your Excellency, I have the honour to enclose a report on the swampy ground on the Estate Bacolet.

Sensible of the vast importance of the object which your Excellency holds in view, no *less than that of obviating a recurrence of that inveterate disease*, which has recently proved so fatal to many brave officers and men, who composed the army under the command of your Excellency; I have paid all possible attention in framing my report, &c.

(Signed) W. D. SMITH,
Commanding R. Engineers.

Extract from Dr. Hartle's Report for June, 1821.

It would perhaps be worthy of remark, that His Excellency Major General Sir F. P. Robinson's family, residing at Government House, Tobago, consisted of His Excellency, Lady Robinson, one son, four daughters, and a European lady; out of these eight persons, only four were attacked with this (said to be) contagious fever, two of whom died. Those attacked were His Excellency, son, and two daughters. It is but natural to conclude, that her ladyship and daughter could not be deficient in attention to so material a proportion of their

family; yet her ladyship, two daughters, and the young European lady escaped the disease altogether. Another strong proof is, that of the Fort Adjutant Lieut. Buchanan, who, with his wife and sister resided in Fort King George; his sister was attacked with the prevailing fever, of which she died. Lieut. and Mrs. Buchanan constantly, and with every marked affection, attended her during her illness, yet neither of them were attacked with the fever. Major Watts, Deputy Assistant Quarter and Barrack Master General, was ordered from this island to Tobago, on duty of his department; he resided with Lieut. Buchanan, in Fort King George, and was taken ill. Lieut. Buchanan was ordered to quit the quarter, which he did do, but went repeatedly to visit, and take care of his friend Major Watts, yet this second time of being exposed to the fever had no avail, and he again escaped.

The hospital steward, who was a European corporal, and must have been constantly exposed to the said animal contagion, lost a child with this fever, yet he was not attacked.

Another Extract from the same Report.

"The Inspector of Hospitals, Mr. Green, having favoured me with the sight of a nominal list of those who suffered with the fever at Barbadoes, I remarked, that the greatest proportion of them were persons who *resided in the huts and that neighbourhood.* Those huts, and that lower part of *the garrison to my* knowledge have more than once been the cause of great sickness and mortality at St. Ann's. They cannot be otherwise, for they *stand on the borders of a swamp or bog of no small extent*, and the dwellings called the huts were always miserably bad. In my opinion, as long as they are allowed to be inhabited, they will be the cause of great sickness and mortality. I understand it has been said, that the fever was imported to Barbadoes by a man from Tobago, but I should be much more inclined to believe, that it was reared in the superficially dry swampy ground, and nourished in the huts."

II.

An Account of the Effect of Mercurial Vapours on the Crew of His Majesty's Ship Triumph, in the year 1810, *by* WILLIAM BURNETT, M.D. *late Physician and Inspector of Hospitals to the Mediterranean Fleet, and now one of the Medical Commissioners of the Navy.*

[Communicated to the Royal Society by Matthew Baillie, M.D. F.R.S.]

IT has long been known, that in the vacuum of the barometer, mercury rises in a vaporous state, at the usual temperature of this climate, and that persons employed in the mines from whence this metal is procured, as well as those who are employed in gilding and plating, have suffered paralytic, and other constitutional affections, from inhaling the air saturated with mercurial vapours; had any doubt remained of mercury existing in the state alluded to, it would be effectually removed by the experiments made by Mr. Farraday, detailed in the 20th number of the Journal of Science, &c.

An unprecedented event which occurred in one of His Majesty's ships of the line at Cadiz, in the year 1810, a short time before I took upon me the charge of the medical department of the Mediterranean fleet, has afforded me an opportunity of illustrating this subject on a very extensive scale, the details of which may not perhaps be uninteresting to the Royal Society.

The Triumph, of 74 guns, arrived in the harbour of Cadiz, in the month of February, 1810; and in the following March, a Spanish vessel laden with quicksilver, for the mines in South America, having been driven on shore in a gale of wind, and wrecked under the batteries then in possession of the French, the boats of this ship were sent to her assistance, by which means, during many successive nights, about 130 tons of the quicksilver were saved, and carried on board the Triumph, where the boxes containing it were principally stowed in the bread room.

The mercury, it appears, was first confined in bladders, the bladders in small barrels, and the barrels in boxes. The heat of the weather was at this time considerable, and the bladders having been wetted in their removal from the wreck soon rotted, and the mercury, to the amount of several tons, was speedily diffused through the ship, mixing with the bread, and more or less with the other provisions. The effect of this accident was soon seen by a great number of the ship's crew, as well as several of the officers, being severely affected with ptyalism, the surgeon and purser being among the first, and most severely affected, by the mercury's flowing constantly into their cabins from the bread room, their cabins being as is usual, on the orlop deck, separated from this store by partitions of wood. In the space of three weeks, from the mercury's being received on board, two hundred men were afflicted with ptyalism, ulcerations of the mouth, partial paralysis in many instances, and bowel complaints.—These men were removed into transports, where those more slightly affected, soon got well; but fresh cases occurring daily, Rear Admiral Pickmore, then in command of the squadron, ordered an inspection to be made by the surgeons thereof, and in consequence of their report, sent the Triumph to Gibraltar, to remove the provisions, and purify the ship by ablution, the affected men being sent to the naval hospital, which order was strictly attended to, the provisions, stores, and likewise the shingle ballast, being removed on shore.

Notwithstanding the removal of the provisions, &c. and afterward frequent ablution, on re-stowing the hold, every man so employed, as well as those in the steward's room, were attacked with ptyalism; and during the ship's passage, and

on her return to Cadiz, the fresh attacks were daily and numerous, till the 13th of June, when the Triumph sailed for England. After their departure from Cadiz, they experienced fresh breezes from the N.E. and the men being kept constantly on deck, the ship aired night and day by wind-sails; the lower deck ports allowed to remain open at all times, when it could be done with safety; allowing no one to sleep on the orlop deck, and none affected with ptyalism on the lower deck, a very sensible decrease in the numbers daily attacked soon became apparent; but nevertheless, many of those already affected became worse, and they were under the necessity of removing twenty seamen, and the same number of marines, with two sergeants and two corporals to a sloop of war, and the transports in company. On their arrival in Cawsand Bay, near Plymouth, on the 5th July, not one remained on the list for ptyalism. The effects of the mercurial atmosphere was not confined to the officers *and ship's company*; almost all the stock, consisting of sheep, pigs, goats, and poultry, died from it; mice, cats, a dog, and even a canary bird shared the same fate, though the food of the latter was kept in a bottle closely corked up.

The surgeon (Mr. Plowman) informed me in conversation, that he had seen mice come into the ward-room, leap up to some height, and fall dead on the deck.

The Triumph, previous to this event, had suffered considerably by having a number of her men attacked with malignant ulcer, which at one time prevailed to a considerable extent in our ships both at home and abroad, and in many of the men who had so suffered, the ulcers which had long been completely healed, without even an erasure of the skin, broke out again, and soon put on a gangrenous appearance.

The vapour was very deleterious to those having any tendency to pulmonic affections: three men died of phthisis pulmonalis, who had never complained, or been in the list before they were saturated with the mercury, and one man who had suffered from pneumonia, but was perfectly cured, and another who had not had any pulmonic complaint before, were left behind at Gibraltar, labouring under confirmed phthisis. Two only out of so large a number affected, died from ptyalism, gangrene having taken place in their cheeks and tongues; they had previously lost all their teeth. In the case of a woman who was confined to bed in the cockpit, with a fractured limb, not only were all the teeth lost, but many exfoliations also took place from the upper and lower jaws.

The mercury showed its effects on the ship herself, by the decks being covered with a black powder, but quicksilver was not discovered at any time in this powder in a native or

globular state, though the brass cocks of the boilers, and the copper bolts of the ship, were covered with the metal, the last to some extent within the wood. A gold watch, gold and silver money kept in a drawer, and likewise some of the iron-work of the ship which had been kept bright, evidently showed the influence of the prevailing atmosphere, being in some places covered with quicksilver.

In a communication, with which Mr. Plowman, the surgeon of the Triumph has obliged me, he states, that those who messed and slept on the orlop and lower decks, with the exception of the midshipmen, suffered equally, while those on the main or upper deck were not so severely affected; the men who lived and slept under the forecastle escaped with a slight affection of the gums. The only reasons which can be assigned for the partial escape of the midshipmen are, that the wind-sails were kept always in action, and these gentlemen were almost constantly on deck, or were more frequently employed on service out of the ship, in proportion to their numbers, than the men.

Various opinions were entertained of the manner in which the systems of the sufferers were brought under the influence of the mercury. By some, it was supposed to have originated from the use of the bread and other provisions, with which the mercury had mixed itself, and to such an extent was this opinion carried, that I find by reference to official documents in the Victualling Office, that seven thousand nine hundred and forty pounds of biscuit were condemned as unserviceable, from having *quicksilver mixed with it*.

By others, among whom was Mr. Plowman, the surgeon, it was considered to have arisen from inhaling the mercurialized atmosphere; and, from the preceding details, I think there cannot remain a doubt, that this opinion was the true one.

It is well known, that mercury in its native state has often been administered in very large doses, in cases of obstinate constipation, without producing any specific effect on the system, merely removing the affection by its specific gravity. I have, however, reason to believe, from the accounts of Orfila and others, that if the mercury was to be retained in the intestines for some time, and thus subjected to the action of the contents of the stomach and bowels, a part might become oxydated, and being conveyed into the system by means of the absorbents, would there show its specific effects. But after the removal of the provisions, &c. at Gibraltar, many fresh cases occurred, and many relapses among those who had been cured out of the ship took place, on their return to duty on board, which effectually destroys the probability of

this having been the cause of the succeeding ptyalism and other morbid affections.

It only remains for me to offer my opinion of the manner in which the system became saturated by the mercury, and this I conceive to have been effected by inhaling the mercurial vapours, the quicksilver being then in the most perfect state of division, was readily taken up by the absorbents of the lungs, and soon showed its influence on the system generally. This idea is very much strengthened by the effect which was produced on the animals on board already mentioned, as well as by the circumstance of a great number of men being attacked after the ship was cleared at Gibraltar, and till she arrived in a more northern latitude.

It may be considered out of place here, to give any detail of the curative means employed; I shall therefore only briefly state, that sulphur, given in large quantities internally, produced no alleviation of the symptoms; on the contrary, it greatly augmented the bowel complaints, with which many of the men were affected, and brought on a most severe tenesmus; consequently it was laid aside; applied externally, it was of no use.

The only plan which produced effectual relief, was removal from the ship, with the frequent use of small doses of neutral salts and detergent gargles.

W. BURNETT.

XI.

BIBLIOGRAPHICAL RECORD;

OR

Works received for Review since last Quarter.

1. An Essay on the Absorbent Vessels; showing that their action is not liable to be influenced by the Artificial Agents commonly applied. By HENRY SEARLE, Surgeon, London. Octavo, sewed, pp. 26. London, 1823. Price 2s. 6d.

---

2. The Philadelphia Journal of the Medical and Physical Sciences, No. 24, in exchange.

---

3. A Probationary Essay on the Use and Effects of Mercury in the Treatment of Syphilis; submitted by Authority of the President and Council to the Examination of the Royal College of Surgeons of Edinburgh, when Candidate for Admission into their Body. By DAVID JOHNSTON, M.D. Extraordinary Member of the Royal Medical Society. October, 1823.

*** *Very creditable to Dr. Johnston's erudition and judgment.*

---

4. Letters on the Prevention and Cure of Diseases peculiar to Hot Climates, intended for the Use of Commanders of Ships, and Persons about to settle in, or visit such Climates; with Remarks on the Use of the Tourniquét, &c. &c. By JAMES BOYLE, Esq. Surgeon, &c. Author of a Treatise on the Epidemic Cholera of India. 2s. 6d.

*** *This little Work contains plain and concise directions for the Class of people above mentioned; and to them will prove useful, in the absence of medical advice.*

☞ The following Work came too late for our Bibliographical Record of last quarter, and was only entered in the advertising sheet.

5. An Engraved Representation of the Anatomy of the Human Ear, exhibiting, in one view, the External and Internal Parts of that Organ, *in situ*, accompanied with a Plate of Outlines and References with copious Explanations. To which are added, Surgical Remarks on introducing the Probe and Catheter into the Eustachian Tube by the Nostril—on puncturing the Membrana Tympani, &c. &c. The whole designed as a Guide to Acoustic Surgery. By THOMAS BUCHANAN, C.M. Surgeon to the Hull Dispensary for Diseases of the Eye and Ear. Folio, pp. 40, two plates. London, 1823. Price 12s. 6d.

*** *This valuable work will be reviewed in our next number.*

---

6. Observations on the State of the Peasantry of the West of Ireland, during the Epidemic Fever, &c. in the months of July, August, and September, 1822. Dedicated to His Excellency the Lord Lieutenant. By DR BURGH BIRCH, M.D. Licentiate of the Royal College of Surgeons in Ireland. *Second Edition.* Octavo, sewed, pp. 24. London, 1823. Price 2s.

---

7. On the Nature and Treatment of the Distortions to which the Spine and the Bones of the Chest are subject. With an Inquiry into the Merits of the several Modes of Practice which have hitherto been followed in the Treatment of Distortions. Illustrated by plates in folio. Octavo, pp. 293. By JOHN SHAW, Surgeon, and Lecturer on Anatomy. London, Dec. 1823. Longman and Co. 10s. 6d.

8. Tears for Pity. By WILLIAM BARRET MARSHALL. Octavo, pp. 162. London, Dec. 1823.

*** *We are not competent, nor is it our place, to say any thing of the poetry; but the preface* evinces a mind well stored with useful knowledge, and highly imbued with those principles which, in all ages, have done honour to human nature. When the subject of this preface comes before us, we shall take an opportunity of making some extracts for the gratification of our readers.*

* "Containing an inquiry into some of the prejudices against the medical profession; more particularly that which alleges infidelity as the natural tendency of physiological pursuits."

---

9. Observations on Prison Discipline, exemplified by the Tread-Mill and Dietary adopted in the Nottinghamshire House of Correction at Southwell. By BENJAMIN HUTCHINSON, Surgeon to the Establishment, &c. Octavo, sewed, pp. 55. Newark, Dec. 1823. 2s. 6d.

---

10. Cases of Inflammation of the Vascular and Cellular Structures. By ANDREW DUNCAN, Jun. M.D. 8vo.

*** *Not sold separately.*

---

11. Transactions of the Medico-Chirurgical Society of Edinburgh. Instituted August 2d, 1821. Octavo, pp. 697, four coloured plates. Price 18s. 6d. Edinburgh, 1823.

*** *This interesting stranger from the North shall have due introduction, and, we fear not, hospitable reception in the South. We reserve the review of it for our next number, the first of a New Series.*

---

12. The Principles of Forensic Medicine, systematically arranged, and applied to British Practice. By JOHN GORDON SMITH, M.D. Lecturer on Political Medicine. *Second Edition*, greatly enlarged. 8vo. pp. 579. Price 16s. 6d. Underwoods, 1824.

---

13. On the comparative Virtues of the different Kinds of Sarsaparilla; to which is added, an Appendix on Cinchonine, Quinine, and other new Vegetable Principles. By Mr. JOHN POPE, Operative Chymist, of Oxford-street. Octavo, pp. 21.

*** *This will be noticed in another part of the Journal when reviewing Magendie's Formulæ.*

---

14. Remarks on the Dangers and Duties of Sepulture; or, Security for the Living, with Respect and Repose for the Dead. By a Fellow of the Massachusetts Medical Society. Octavo, sewed, pp. 74. Boston, (America,) 1823.

*** *Our author's motto is taken from Seneca—"Non defunctorum causa, sed vivorum inventa est sepultura." In accordance with this principle, he strenuously reprobates the practice now creeping into use beyond the Atlantic, of burying the dead in churches. He considers this mode of sepulture as highly dangerous to the health of the living, and draws arguments and examples from all ages, with considerable erudition and force of persuasion.*

---

15. An Essay on an improved Method of Cutting for Urinary Calculi; or, the Posterior Operation of Lithotomy. By W. W. SLEIGH, Member of the Royal College of Surgeons, and Lecturer on Anatomy and Surgery in London. 8vo. pp. 106, two plates. Anderson, London. Price 6s. bds. 1824.

16. Essays on Various Subjects connected with Midwifery. By W.P. Dewees, M.D. &c. Octavo, pp. 480. Philadelphia, 1823.

*** *We shall take as early notice as possible of Dr. Dewees's Essays. In the meantime, we have to inform the Profession that a few copies of this Work are to be had of Mr. Millar, 69, Fleet-street, London.*

---

17. Essays on Fevers and other Medical Subjects. By Thomas Miner, M.D. and William Tulley, M.D. 8vo. pp. 484. Middletown, (Connecticut, America,)1 823.

---

18. Biographical Sketch of the late Matthew Baillie, M.D. By James Wardrop, Esq. Surgeon Extraordinary to the King. Octavo, pp. 17. 1824.

---

19. An Exposition of the Dangers of Interment in Cities; illustrated by an Account of the Funeral Rites and Customs of the Hebrews, Greeks, Romans, and Primitive Christians, &c. compiled chiefly from the Works of Vicq. D'Azyr and Professor Piattoli, with Additions. By Felix Pascalis, M.D. &c. Octavo, pp. 167. New-York, 1823.

---

20. Transactions of the Medical Society of the State of New-York, for the Year 1823. With an Appendix, containing a System of Medical Ethics. Octavo. New-York, 1823.

*** *The System of Medical Ethics is drawn up by that zealous and able medical philosopher, Dr. Felix Pascalis. Would to Heaven that his brethren, on both sides of the Atlantic, would adhere to the rules which he has laid down, and which are creditable to the head and heart of their author. We shall take an early opportunity of noticing this work.*

---

21. Address, delivered before the New-York County Medical Society, on the 11th of November, 1822. By Felix Pascalis, M.D. Censor of the State Medical Society of New-York, &c. &c. Octavo, 1823.

*** *This discourse is on the nature of the late epidemic fever. Dr. P. does not consider it as contagious, but depending on a vitiated condition of the atmosphere, produced by exhalations or deleterious gases. These, he thinks, interrupt the functions of the lungs primarily, and cause pestilential diseases.*

---

22. Practical Observations on the Removal of every Species and variety of Cataract by Hyalonyxis, or Vitreous Operation, illustrated by Cases; with critical and general Remarks on the other Methods employed. By John Bowen, M.D. Fellow of the Royal College of Physicians of Edinburgh, Member of the Royal College of Surgeons of London, &c. &c. Octavo, pp. 120. Price 6s. Callow and Wilson, London, Jan. 1824.

---

23. An Essay on Apparitions, in which their appearance is accounted for by causes wholly independent of preternatural agency. By John Alderson, M.D. Senior Physician to the Hull General Infirmary, &c. 8vo. pp. 53. New Edition, revised and corrected.

---

24. Dissertatio Inauguralis Medica Sistens Experimenta Nonnulla Circa Vitam Arteriarum et Circulationem Sanguinis per vasa Collateralia. Auctore Friderico Guilielmo Oppenheim, M.D. Hamburgensi, 4to. with a plate. Manheim, 1823.

*** *Thanks to our ingenious young friend, whose thesis does honour to himself, and the celebrated professors of his Alma Mater, Heidelberg.*

25. **Pathological Observations on the Rotated or Contorted Spine, commonly called Lateral Curvature, deduced from Practice. In which are shown the Causes that produce it; the Reason of its being mistaken for an Incurvation of the Spinal Column; and the Means best adapted to its Prevention and Cure, agreeably to the Principles laid down, and the Author's Experience. By Andrew Dods, M.D. late of Edinburgh, and Surgeon in the Royal Navy. 8vo. pp. 239, with wood-cuts. Cadell, London, 1824. *Dedicated by permission to Sir Astley Cooper, Bart.***

*** *This is a valuable addition to our knowledge of Spinal Diseases—contains new views of the subject, both as to pathology and treatment—does great credit to the author—and will be useful to the public. We shall give a review of the work in our next number.*

---

26. **Pathological Observations. Part I. On Dropsy, Purpura, and the Influenza of the latter end of the year 1822, and beginning of the year 1823; and particularly on the Morbid Changes of the Blood, and their Influence on the Production and Course of these Diseases, illustrated by select Cases and Dissections. By William Stoker, M.D. *Ed.* &c. Senior Physician to the Fever Hospital, and House of Recovery in Cork-street, Dublin. 8vo. pp. 244. Dublin, 1824. Price 8s. 8d. boards.**

---

27. **Observations on Strictures of the Rectum and Colon, and other Affections which diminish the Capacity of the Intestinal Canal in those parts; including Spasmodic Constriction of the Sphincter Ani, Hæmorrhoidal Tumours, Excrescences, and Prolapsus Ani, accompanied with the Mode of Treatment, several Cases, and Engravings. By W. White, Member of the Royal College of Surgeons, and one of the Surgeons to the City Infirmary and Dispensary, Bath. 8vo. 4th Edition, much enlarged, pp. 217, plates, price 7s. 6d. London, 1824.**

*** *This Edition appears to be much improved as well as enlarged. We gave a full Analysis of the work in a former number of this Journal.*

---

28. **Dissertatio Medica Inauguralis de Inflammatione Communi; Auctore Joanne Elliotson, M.D. Edinburgi, 1810.**

*** *A highly classical thesis.*

---

29. **Practical Observations on the Symptoms, Discrimination, and Treatment of some of the most Important Diseases of the Lower Intestines, and Anus;—particularly including Stricture, Ulceration, Intussusception, and Tumour within the Cavity of the Rectum, &c. &c. &c. illustrated by numerous cases. By John Howship, Member of the Royal College of Surgeons, &c. &c. &c. 8vo. pp. 282, 3d Edition, with numerous additions. 1824.**

*** *This edition is very considerably enlarged and improved.*

---

30. **The Origin of Various Establishments for Conducting Chymical Processes and other Medicinal Preparations at Apothecaries Hall. 8vo. sewed, pp. 21, with a plate. Apothecaries Hall, 1824.**

*** *In this pamphlet, there are some observations (several of them we fear too true) on the adulteration of medicines by private chymists and druggists. They admit, of course, that there are many respectable individuals of this class in London, "from whom genuine drugs may be purchased."*

---

31. **An Essay on the Effects of Iodine on the Human Constitution; with Practical Observations on its Use in the Cure of Bronchocele, Scrofula, and the Tuberculous Diseases of the Chest and Abdomen. By W. Gairdner, M.D. 8vo. pp. 64, Underwoods, 1824. Price 3s. 6d. boards.**

XII.

INTELLIGENCE, &c.

M. Geoffroy St. Hilaire in Paris, and M. Jean Mueller of Leipzick, have announced Memoirs, yet in embryo, on the *Respiration of the Fœtus in Utero*. These discoveries will puzzle our writers on Infanticide!

A case of imperforate anus and urethra is now to be seen in the person of a mendicant near the village of Nancy, in Lorraine. The patient vomits his excrements and urine. The details will be published in the *Archives Generales*.

In the space of five years, (from the 1st January, 1817, till the end of December, 1821,) 1730 cases of suicide have occurred in Paris. Of these, 1124 were males, and 606 females—862 were married, and 868 unmarried. The causes were as follows:—

1. Love	121
2. Diseases, disgust of life, alienation, domestic quarrels	628
3. Gaming, lotteries, debauches, &c.	228
4. Indigence, and deranged affairs	342
5. Fear of punishment and blame	58
6. Motives undiscovered	353
Archives Generales, November, 1823.	Total 1730

DOSES OF MEDICINE.

Much misunderstanding of the word "dose" has prevailed in this country respecting the continental practice. *Here* it signifies *what* is taken of a *medicine* at one time—on the *continent*, it means what is taken of a medicine in 24 hours. The large doses of medicine exhibited by our Italian brethren are thus, in part at least, accounted for. But it must be remembered, that the Italian physicians exhibit large doses of medicine (as antimony for instance) in *acute* diseases, as a substitute for venesection. It is certain that, in such circumstances, medicines have not one-tenth the effect which they have in health, or where free depletion has preceded their exhibition.

OPERATIVE CHYMISTRY.

In the next number of this journal, (being the first of a new series) we shall dedicate a portion of our extra-limites department to a paper by Mr. Battley on Opium. In the succeeding numbers, a series of papers on Practical Subjects of Pharmaceutical Chymistry, are expected from the same pen.

Literary Notice. Dr. Forbes, of Chichester, has in press a work on the Diagnosis of Thoracic Diseases, which will comprise, 1. A Condensed Translation of Avenbrugger's Treatise *on Percussion of the Chest*, with Corvisart's Commentaries; 2. A Translation of the Diagnostic Part of Laennec's Treatise on *Mediate Auscultation*; and 3. A Series of Original Cases (with dissections) illustrative of the Utility of Percussion and the Stethoscope in the Diagnosis of Diseases of the Chest.

Ligature of the Arteria Innominata. It has surprised us a little to see all our cotemporaries employed in detailing Dr. Valentine Mott's Operation for Aneurism of the Arteria Innominata, or Subclavian, which, occupying four pages, was published in this Journal between four and five years ago, viz. in our number for July, 1819, p. 147, *et seq.* It has still more surprised us that it has escaped our cotemporaries, that it was very far from satisfactorily proved that there was any aneurism in the case. A furious paper war was carried on in America some years ago respecting this case, rendering it still more remarkable that it should now be brought up as new.

MEDICO-CHIRURGICAL REVIEW.

The editor respectfully informs various private friends, public societies, and editors of Journals, that his avocations entirely prevent him any longer forwarding to them the numbers of this Journal. The various foreign and domestic Journals are ordered by him to be purchased for this Review; and those who think a reciprocal return desirable will follow his example.

MR. COLE'S TRUSS.

I hereby certify, that I have worn the trusses of Mr. Cole's invention for sixteen months past, and have found them more easy and more efficacious than any others which I had worn for fourteen years previously.

London, Sept. 1823. CARYER VICKERY, Surgeon, R.N.

London, to Wit.—Robert Hubbard of the Parish of St. Sepulchre, London, maketh oath and saith, that he hath laboured under a very severe rupture upwards of thirty years, which has increased to an enormous size, and disabled him for many years past from following his avocation as a smith. This deponent likewise worked a journeyman for several eminent truss makers in London, but he never saw a truss in his life which was calculated to keep up his rupture, (in its present state) until Mr. Cole, of London Bridge, applied one of his invention, whereby he the said deponent hath been rendered perfectly secure and free from pain *during eighteen* months past, and that *he is thereby enabled to work* at his business, or walk four miles in one hour with ease.

ROBERT HUBBARD.

20th *August*, 1823. Sworn at Mansion-House, London, before me, W. Heygate, Mayor.

I hereby certify, that I have suffered twice the dangers of strangulated hernia, which had almost proved fatal. I placed myself under the care of an eminent surgeon in this neighbourhood, from whom I learned that Mr. Cole had given proofs of extraordinary talent in his profession; a truss was immediately procured which affected a pressure of at least sixteen pounds upon the hernia, which was not removed from the part for fourteen days and nights. He has since applied a bandage, which I have worn for a much longer period, without removing it. It is with great satisfaction that I can inform those who are similarly circumstanced, that I have never suffered a shadow of pain since I have been under his care.

Dover Castle Inn, JOHN MARTIN,

21*st November*, 1822. Licenced Victualler, Deptford.

GAZETTING.

In consequence of the death of Dr. J. Johnson of the Albany, a pretty general idea prevailed, and even yet prevails, among his friends in the country, that the Editor of this Journal has gone to the shades. As an episode to this delusion, it was last month *gazetted* by the "Southcote Sage," that Dr. Johnson *had gone* to Paris for *surgical assistance*, and was therefore only the *nominal* editor of this reveiw! Now this journey to Paris for surgical assistance was, in reality, a tour of about 2500 miles through France, Switzerland, Germany, and Belgium, in the months of August, September, and October last, during which tour, Dr. Johnson never took a dose of physic, and never enjoyed robuster health or higher spirits in the whole course of his life.

It has been frequently asked, how it happened that Dr. Johnson was honoured with such an unusual proportion of vituperation in the "GAZETTE OF HEALTH" —or more properly speaking, the GAZETTE OF FILTH, conducted by the renowned Æsculapius of the Egyptian Hall—Richard Reece, M.D. (which signifies Dealer in Medicine Chests) of the university of London; Physician-Accoucheur to Her late Holiness, Johanna Southcote, &c.? There are reasons for all things—and for *this* there happens to be no less than *ninety* very weighty ones. About ten or eleven years ago, the Piccadilly M.D. or drug-dealer, conceived the benevolent project of extending the benefits of his *disinterested* vice to our Indian posses sions; (instead of confining them to the Medical

Hall and Bolton Row) and with that view, published, by the aid of a *Gazetteer*, or rather GARRETTEER, a work entitled—"The Medical Guide for Tropical Climates," in which, with laudable zeal, were well puffed off the Medicine Chests, Rhatany Root, "*Preventive Soap*," Buchu Leaves, &c. &c. to be found in genuine perfection *only* at the Medical Hall in Piccadilly. Who would have thought that there was any harm in this?—especially when the work was dedicated, "BY PERMISSION," to Dr. William Dick, Principal Physician to the East India Company—and not only *by permission* for the dedication, but as was pointedly averred, with the entire *approbation of the work itself*, by that distinguished physician? In the face of all this, a review appeared in one of the Medical Journals soon afterward, portraying so felicitously the matchless absurdity, quackery, and ignorance of the publication, that it fell still-born from the press amidst a burst of ridicule. This was the least of the bad consequences attending this wicked critique. Dr. William Dick, the patron and approver of the work, immediately came forward, and affirmed that, not only did he never lend his name to such a wretched production, but instead of *approving it, he never saw or heard of it*, till the just critique of it appeared in the Journal—thus affixing an indelible stain on the moral character of an author who could deliberately publish a falsehood in the title page, and another falsehood in the preface of his book—and both for the purpose of puffing off his merchandise!![*]

Our readers may form some idea of the paroxysm of rage produced by this public detection of unparalleled effrontery and falsehood. There was no resource but a prosecution, by indictment, of the editors and publishers of the critique. A bill was accordingly filed, and great preparations were made; but, lo! when the day of trial came, the heart of the "Southcoate Sage" failed, and, rather than let the transaction come into court, he pocketed the loss of his character for veracity—the edition of his Tropical Guide—and *ninety guineas* law expenses!—A pill so bitter to swallow and hard to digest, has, ever since that period, occasioned a monthly effusion of gall against Dr. Johnson, the supposed writer of the critique. Considering the nature and extent of the offence, Dr. J. does not wonder at, nor complain of, the continued and unextinguished ire of the "Southcoate Sage." He has inflicted on that worthy personage a wound, the smarting of which can never cease on this side of the grave—and consequently his share of vituperation must, in common justice, be greater than that of all others put together. His friends have now a key to the GAZETTE OF FILTH—and can explain "to the clergy and heads of families" in the country, the secret springs which actuate that *disinterested* publication. We are thoroughly convinced that, in every instance where its reptile editor has squirted his filth on the members of the profession, from the College of Physicians down to the Sage's own fraternity of Quacks, the same base and dastardly personal motives were at the bottom of the transaction, could they be brought to light.† In our next number, we promise our readers a hearty laugh at the portraiture (drawn faithfully from the writings and actions of the "Southcoate Sage") which this disgrace to the very dregs of medical society presents of absurdity, impudence, baseness, and mendacity.

DR. DICK'S LETTER.

* "Gentlemen—You have severely censured me for approving of a book entitled "The Medical Guide for Tropical Climates," by Richard Reece, M.D. and I must acknowledge that you could not condemn me too much, had there been any truth in the charge. But I most solemnly declare, that I did not see a single line in the said book *before or after* its publication; nor did I know that it existed, till I read your just criticisms on it. *New. Med. Journal*, 1814. WILLIAM DICK."

† To his utter disgrace, *one physician* in this metropolis, whose birth, parentage, and academical education *ought* to have taught him to respect himself as well as his profession, has had the meanness and the wickedness to write two or three *anonymous* letters in the infamous publication above mentioned; and that for the sole purpose of traducing the character of some of his brethren, whose talents, integrity, and success were greater than his own!—He is now meeting *his* deserts—sinking fast into ruin and contempt.

POSTSCRIPT *to Bibliographical Record.*

1. *Observations on Vaccination, and on the Practice of Inoculating for the Smallpox.* With an Appendix of Cases and Facts. By JOHN CONOLLY, M.D. Physician to the Stratford Dispensary, &c. Octavo, sewed, pp. 76. Price 3s. Baldwin and Co. London.

---

2. Nugæ Chirurgicæ; or a Biographical Miscellany, illustrative of a Collection of Professional Portraits. By WILLIAM WADD, Esq. F.L.S. Surgeon Extraordinary to the King, Fellow of the Royal College of Surgeons of London, &c. Octavo, pp. 276. London, 1824.

*** *Mr. Wadd possesses a very respectable collection of medical portraits; and this work is a kind of catalogue raisonnee of the originals. We shall notice some of the biographical sketches in the Review department.*

---

3. A Course of Lectures on Chymical Science, as delivered at the Surrey Institution. By GOLDSWORTHY GURNEY. Octavo, pp. 310, eight plates, price 12s. boards. Whittakers, 1824.

---

4. A Letter from Goldsworthy Gurney, author of "Lectures on Chymical Science," to W. J. Brande, Esq. Professor of Chymistry at the Royal Institution, on a late Review of Mr. Gurney's Work, in the "Quarterly Journal of Science, &c." Octavo, sewed, pp. 22. Whittaker, 1824. Price 1s. sewed.

*** *In this Letter Mr. Gurney complains bitterly of the injustice, &c. of a review in Mr. Brande's Journal—but which reviewer he does not impute to the pen of Mr. Brande himself. We must refer to the Journal and the reply for the various coups and contre-coups which have been given and returned in this literary, or rather scientific, sparring-match.*

Non nostrum inter vos, &c. &c.

The Animal Kingdom, arranged in conformity with its Organization by the Baron Cuvier, &c. &c. &c. With additional Descriptions of all the Species hitherto named—of many not before noticed; and other original matter. By EDWARD GRIFFITH, F.L.S. and others. Octavo, pp. 203, with 15 plates, price 15s—to be continued quarterly.

*** *This is the cheapest and most valuable work of the kind in any language. The plates alone are worth the money. Besides the original matter, it will form a complete translation of Cuvier's Work,* (4 volumes in the original,) *which has never been in an English dress before.*

Postscript to Intelligence, Correspondence, &c.

We are obliged to several correspondents for information respecting Corvisart's translation of Avenbrugger. The article in our last number, on Percussion, was written more than ten years ago, and the note escaped erasure, while the article was passing through the press, the Editor being from home at that time.

The letter from Dr. M—— of B—— is received, and the subject he alludes to will shortly be noticed. The book has not yet been sent to the Editor from Dr. M.'s publisher.

Dr. Sinclair's packet came safe to hand. Dr. S. will please to observe, that no original communication, and more especially a controversy, can be inserted in the body of the Journal. The *Extra Limites* department is for that purpose, and the expense must fall upon the author. If we once swerved from this rule our Journal would soon cease to exist.

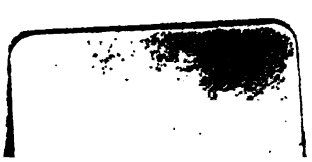
Dr. D. J. H. Dickson, of Clifton, is appointed Physician to His Majesty's Naval Hospital at Plymouth, *vice* Dr. Thompson deceased.

Dr. Gordon Smith will shortly put to press a Practical Work on Poisons: which will form a comprehensive Manual of Toxicology.

INDEX.

Abdominal pressure..... 569
Abdominal tumour 220
Abortion, Mr. Ward on 699
Accretion of heart and pericardium 548
Acetate of morphia, preparation of 208
Acupuncture 956, 958
Alcock, Mr. on medical education..... 521
Allan, Mr. on acute mania 939
Amenorrhœa, Dr. Lavagna on .. 700
Amputation, remarks on 948
Amputation at the hip-joint 947
Amputation, tourniquets in 953
Anatomico-pathological researches 487
Anderson, Dr. on yellow fever 1009
Andral on the intestinal canal .. 673
Aneurism, Mr. Todd on 77
Aneurism mistaken..... 919
Antimoniated ointment in agues 701
Aorta, aneurism of, Mr. Hunter 767
Apothecaries' transactions 519
Arsenic, poison of 221
Arson, Dr. Paris on 601
Ascarides, remedy for..... 206
Ascension, fever at 916
Asylum, Glasgow Lunatic 775
Axillary artery, rupture of 951
Ballie, Dr. estimate of his character..... 734
Bann, contagious fever in 916
Barclay, Dr. answers to..... 868
Bedlam, sketches in 511
Bell, Mr. on cancer mammæ 195
Bile, Mr. Brodie on the 186
Biliary calculi, Mr. Brayne on .. 791
Biography of Dr. Baillie 734
Blood-letting in hydrothorax 942
Blue disease, remarks on 924
Bowman, Mr. on mercurial vapour 1010
Brain, destruction of, in a fœtus 800
Brain, painful affection of 463
Brayne, Mr. on biliary calculi.... 791
Briggs, Mr. James, on scirrhus and cancer 172
Brodie, Mr. on the bile 186
Brodie, Mr. on extraction of calculi 804
Bronchocele, Mr. Austen on 193
Bronchocele, iodine in..... 801
Bronchotomy 213
Bronchotomy, Dr. Burgess on.... 339
Brucine in paralysis 944
Bull, Dr. on cancer of the lip.... 464
Burgess, Dr. on bronchotomy .. 339
Burnett, Dr. William, on mercurial vapour 1010
Byron, Dr. on coagulum of blood in the bladder 316
Cæcum, ulceration of..... 470, 739
Cæcum, scirrhous, mistaken 919
Cæsarean operation..... 964
Calculi, on extraction of, Sir A. Cooper 803
Cancer, Professor Scarpa on.... 172
Cancer, Mr. Bell on 195
Cancer, cured by oxymurias hydrarg..... 222
Cancer, chimney-sweepers 799
Cancer of the penis 837
Carbuncle, Mr. Swallow on 934
Carmichael, Mr. on strangulated hernia 340
Carmichael, Mr. on phrenology .. 868
Carotid artery, wound of..... 334
Carter, Dr. on epilepsy 700
Carter, Dr. on diabetes 935
Cas Rares, or remarkable cases.. 295
Castaing, Dr. his case considered 968
Catarrhus vesicæ..... 749
Cathartics, Dr. Chapman on 72
Chapman, Dr. on therapeutics 61, 551
Cheyne, Dr. on dysentery 136
Cholera epidemica 927
Circulation, physiology of 38
Circulation of the blood 966
Clarke, Mr. on female diseases.. 655
Coagulum of blood in the bladder 316
Coal tar, how far a cause of foul air 996
College of Physicians 386
College of Surgeons 390
Combe, Mr. George, on phrenology..... 848, 855
Colles, Dr. on dissection wounds 95
Colon, stricture of 451
Colon, disease of, simulating aneurism of the heart..... 468
Constipation, Dr. Maxwell on .. 937
Constipation, Dr. Chisholm on .. 941
Contagion of yellow fever, Dr. Musgrave on 979

Cooke, Dr. on epilepsy 119
Cooper, Sir Astley, on dilatation of urethra..... 193
Cooper, Sir Astley, on Fractures 707
Cooper, Sir A. on extraction of calculi 803
Countenance, signs of in disease. 813
Crampton, Dr. Philip, on leeching internal surfaces 313
Crichton, Sir Alex. on phthisis .. 102
Crichton, Dr. on yellow fever... 1002
Cubebs in gonorrhœa..... 216
Cumin, Dr. on Disease of the heart..... 331
Cusack, Dr. ligature of the carotid..... 334
Cutaneous diseases, Mr. Wilkinson on 132
Dasher, transport, fever in 994
Davy, Dr. on pneumo-thorax.... 922
Death, sudden and mysterious .. 920
Delirium tremens 918
Diabetes mellitus 200, 345
Diabetes..... 935
Diagnosis, Dr. Hall on 811
Diaphragmatic pleuritis 912
Diaphoretics, observations on .. 76
Dislocations, Sir A. Cooper on .. 225
Dissections, wounds in 95
Distortions of the spine, Mr. Shaw on 882
Diuretics, Dr. Chapman on..... 74
Douglas, Dr. on puerperal fever.. 83
Douglas, Dr. on extraction of the placenta 961
Dracunculus, Dr. Scott 182
Dublin, on the diseases of..... 88
Dublin Hosp. Reports, Vol. III.. 313
Dupuytren, M. on prolapsus ani 194
Dyett, Dr. on yellow fever..... 1008
Dysentery, Cheyne and O'Brien on..... 136
Earle, Mr. H. observations in surgery 707
Earle, Mr. on ununited fractures 192
Ectropion, Mr. Guthrie on..... 437
Education, medical, Mr. Alcock on 521
Ellis, Mr. biography of Dr. Gordon..... 29
Emetics, Dr. Chapman on..... 69
Enteritis, Mr. Wade on 193
Enteritis, M. Tacheron on..... 743
Entropium, Mr. Guthrie on 429, 658
Epilepsy, Dr. Cooke on 119
Epilepsy, Baron Larrey on 465
Epilepsy, Dr. Carter on..... 700
Esophagus, stricture of 237
Esquirol on suicide 1
Evans, Mr. on mal-practices in medicine 768
Extirpation of the thyroid gland . 702
Extravasation within the cranium..... 952
Eye, lectures on, Mr. Guthrie .. 427
Falret, Dr. on suicide..... 1
Females, on the diseases of 635
Femoral aneurism, spontaneous cure of 955
Fever, bilious remittent 211
Fever, yellow, Dr. O'Halloran .. 292
Fever, yellow, in the Bann and at Ascension 916
Fleurens, M. on the nervous system 703
Fœtus, destruction of brain in .. 800
Fœtus, venereal disease in..... 839
Food, adulteration of..... 599
Fractures of the cranium (Mr. Baker) 953
Fractures, diagnosis of..... 954
Fractures ununited, Mr. Earle .. 192
Glasgow Lunatic Asylum 775
Glottis, on œdema of the 452
Good, Dr. study of medicine 155
Gordon, Dr. biography of..... 29
Gregory, Dr. George, on postvaccine disease 806
Gregory's, Dr. George, case of encysted tumour 915
Guthrie, Mr. operative surgery of the eye 427, 658
Haden, Mr. on the poison of food 765
Hæmatemesis 928
Hæmoptysis..... 157
Hæmorrhage, internal 930
Hall, Dr. on Semeiology 811
Hammond, Mr. on destroyed brain in a fœtus 800
Hartle, inspector, his reports on yellow fever..... 993
Harvey, curious preparations of. 234
Hawkins, Mr. on ulcerations of the larynx 471
Heart, disease of, Dr. Cuming .. 331
Heart, enlarged..... 706
Heart, chronic inflammation of .. 545
Healey, Mr. on a paralytic affection..... 318
Hernia, Mr. Lizars on the treatment of 232
Hey, Mr. his life, by Mr. Pearson 827
Hip-joint, dislocations of 342
Homicide..... 607
Homicide, trial for 969
Hooping-cough, new theory of .. 449
Hospital reports (Dub.) Vol. III. 77
Howship, Mr. obstructed œsophagus..... 317
Howship, Mr. on the urinary organs 369

Human combustion 604
Hume, Dr. on tonic treatment of phthisis..... 189
Hydatid, Mr. Pretty's case 930
Hydrophobia, Marochetti on.... 917
Hydrophobia, supposed case of .. 942
Hydrothorax, M. Tacheron on .. 757
Hypochondriasis..... 162
Infanticide, trial for 972
Infants, on the vitality of..... 738
Inflammation, Dr. Lucas on 38
Inflammation, products of 223
Inflammation of the diaphragmatic pleura..... 912
Inflammations, cutaneous 489
Injecting machine for the stomach..... 742
Insanity, traits of, in Bedlam ... 511
Internal surfaces, leeches to 313
Intestine, portion of, expelled ... 932
Irritation, Mr. Earle on..... 793
Jaundice, Dr. Henry Marsh on .. 319
Jaw, on injury of, Mr. Powell .. 760
Johnson, Dr. on disease of the heart..... 548
Joints, on fractures, &c. of 707
Journal of phrenology..... 847
Journals, medical, increase of ... 911
Jurisprudence, medical 383, 596
Kerrison, Dr. on dilatation of the urethra..... 802
Knife-eater, account of..... 218
Lachrymal gland, diseases of.... 344
Lancet, (Medical Journal) examined..... 973
Larrey, Baron, on epilepsy 465
Laryngeal disease, Mr. Shaw on 188
Larynx, remarkable disease of .. 452
Larynx, syphilitic ulcers of 471
Lecturers, their privileges discussed 973
Leeches, Dr. Price on 697
Leeches to internal surfaces, 313, 940
Legal medicine 968
Lip, cancer of, Dr. Bull 464
Lips, on diseases of..... 794
Lithontriptics, Dr. Chapman on . 75
Lizars, Mr. on the treatment of hernia 232
Local irritation, Mr. Earle on, .. 793
Lucas, Dr. on inflammation and fever..... 38
Lunacy, destructive propensities in 781
Lunatic Asylum of Glasgow 775
Magendie, Dr. on the spinal marrow..... 702
Mammæ, on enlargement of 838
Marsh, Dr. on jaundice 319
Marsh, Dr. on diabetes 345
Materia medica, Dr. Chapman on 61
Materialism and immaterialism .. 159
Medical practitioners, actions against 391
Medical jurisprudence 426, 596
Medico-Chirurg. Transactions .. 790
Meningine, Dr. Scoulton on 698
Mercurial vapour, Dr. Burnett on 1010
Mercury in acute diseases 222
Mercury, Mr. Swan on the action of 277
Merriman, Dr. on the vitality of infants 738
Muscle, degeneration of..... 945
Musgrave, Dr. on yellow fever .. 979
Nerve, wounds of 550
Nerves, on painful affections of.. 766
Nervous system, physiology of .. 966
Nervous system, M. Fleurens on 703
Neuralgia 167
Nuisances 419
O'Beirne, Dr. on tetanus 335
O'Brien, Dr. on dysentery 136
Obstetric delinquency..... 961
Œdema of the glottis 462
Œsophagotomy 947
Œsophagus, case of obstructed .. 317
O'Halloran, Dr. on yellow fever . 282
Opium injected into the veins.... 935
Opium in acute mania..... 939
Oxalic acid, experiments on 201
Paralysis, Dr. Prichard on..... 926
Paralytic affection, curious case of 318
Paris, Dr. on medical jurisprudence 383, 596
Parry, Dr. on the pulse 38
Pathology, Dr. Pring on..... 241
Pathology of the intestinal canal 673
Pearson, Mr. his life of Mr. Hey 827
Penis, cancer of 837
Penitentiary at Millbank 235
Percival, Mr. on veterinary medicine 583
Perineum, perforation of 318
Periscope, on the importance of.. 911
Peritonitis, supposed from poison 970
Petechiæ hæmorrhagicæ..... 206
Pett, Dr. his death 98
Pharmaceutical formulæ 938
Phrenology, curious case of 969
Phrenological Society's Transactions 848
Phrenological Journal 847
Phthisis, Sir A. Crichton on 102
Phthisis, tonic treatment of 189
Phthisis pulmonalis, Mr. Gaitskell on..... 929

Physiological pathology..... 934
Physiology of the circulation.... 38
Placenta, extraction of..... 961
Plethora, Dr. Good on..... 156
Pleuritis, M. Tacheron on..... 754
Pneumonia, Dr. Forbes on..... 928
Poison of food, Mr. Haden..... 765
Poisoning from nux vomica..... 972
Poole, Dr. on phrenology..... 851
Popular medicine, Dr. Thomas. 238
Powell, Mr. on injury of the jaw. 766
Pretty, Mr. on petechiæ hæmorrhagicæ..... 206
Prichard, Dr. on paralysis..... 926
Priee, Dr. on leeches..... 697
Pring, Dr. on general pathology 241
Prolapsus ani, treatment of..... 194
Prussic acid..... 940
Puerperal fever, Dr. Douglas on.. 83
Puerperal convulsions..... 963
Purpura hæmorrhagica..... 941
Putrefaction corrector of..... 939
Pyramus frigate, fever in..... 995
Rape..... 606
Retention of urine..... 959
Rheumatic metastasis..... 215
Rheumatism, on the treatment of..... 935
Roots, Dr. on bronchocele..... 801
Salivation, mode of arresting.... 941
Sanguineous tumour, Mr. Briggs 180
Scarpa, on schirrhus and cancer. 172
Scirrhus, Professor Scarpa on... 172
Soett, Dr. on Dracunculus..... 182
Scott, Dr. on dislocations of the hip-joint..... 342
Scott, Mr. on phrenology..... 854
Semeiology, Dr. Hall on..... 811
Shaw, Mr. on laryngeal disease. 188
Shaw, Mr. on distortions of the spine..... 882
Shillito, Mr. on ruptured uterus.. 762
Simulated diseases..... 596
Slow poisons..... 627
Speer, Dr. on the diseases of Dublin..... 88
Spinal marrow, destruction of.. 701
Sprague's, Mr. formulæ..... 938
St. Kitts, yellow fever there..... 993
Strangulated hernia, curious case of..... 340
Strychnine and brucine..... 944
Subclavian artery, ligature of... 954
Subclavian aneurism..... 958
Suicide, Esquirol and Falret on.. 1
Suicide, Dr. Paris on..... 625
Surgical operations, Mr. Averell on..... 945
Swan, Mr. on the action of mercury..... 277
Symphysis pubis, division of.... 965
Symptomatology, Dr. Hall on.... 811
Tacheron's pathological researches..... 487, 743
Talicotian operation..... 960
Tar vapour, Sir A. Crichton on 102
Tetanus, Mr. Hutchinson on.... 200
Tetanus, Dr. O'Bierne on..... 335
Tetanus, treatment of..... 933
Therapeutics, Dr. Chapman on.. 61
Therapeutics..... 935
Therapeutics, elements of..... 551
Thigh-bone, fractures of..... 707
Thoracic percussion, on..... 569
Thyroid gland, extirpation of.... 702
Tic douloureux, iron in..... 700
Todd, Mr. on aneurism..... 77
Todd, Mr. on diseases of lachrymal gland..... 344
Tourniquets in amputation..... 953
Tracheotomy, curious case of... 955
Transactions of the Apothecaries..... 519
Transactions of the Med. Chir. Society..... 790
Transactions of the Phrenological Society..... 847
Triumph (74) mercurial vapour in..... 1010
Tumour, encysted, curious case.. 915
Tumour, immense, removed, (Mr. Liston)..... 957
Ulceration of the cæcum..... 730
Urethra (female) dilatation of.. 193
Urethra of the male, Dr. Kerrison..... 802
Urinary organs, Mr. Howship on..... 369
Urinary secretion, physiology of 965
Urine, curious case of suppression..... 372
Urine, suppression of..... 959
Urine, retention of..... 959
Uterus, cancer of, extirpation.. 463
Uterus, rupture of, Mr. Shillito.. 762
Uvula, elongation of..... 956
Vaccination, Dr. Gregory on.... 806
Vaccine and measles at once.... 295
Varicose veins..... 964
Variola and varicella..... 214
Venereal disease in the fœtus.... 839
Veterinary art, lectures on..... 583
Vincent, Mr. operation on the neck..... 207
Wardrop, Mr. on wounded nerves..... 450
Webster, Dr. on hooping-cough.. 449
Wilkinson, Mr. on Cutaneous diseases..... 132
Wounds, poisoned..... 698
Yellow fever, Dr. Musgrave on.. 979
Yellow fever, Dr. Hartle on.... 998